ENERGY-SCAN

R 9/86

BY TOM KNEITEL, K2AES

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INTRODUCTION

In the 1940's listeners from coast to coast reported hearing station WSIB of the Potomac Electric Power Co. in Washington, D.C. WSIB happily responded to all letters and QSL requests.

Times have changed. In mid-1980 the power utility industry appealed to the FCC to permit the use of digital voice scramblers, citing that "concern exists in the Federal Government and the utility industry over attempts to intercept communications of utilities in general and nuclear power facilities in particular." Saying that such voice scramblers would be part of the security coverage, the power utilities now feel their communications should be considered as "sensitive."

This reflects the current cloak of secrecy which government and many of the larger industries wish to pull up around their operations; undoubtedly protests against "Nukes" only served to intensify this attitude, possibly public interest in listening for any communications concerning possible environmental hazards were also taken into account.

Should the FCC look with favor upon this plea, it would probably take a long time before such scramblers can be placed in service, and even then it seems that only certain frequencies at specific facilities would be affected. By then, surely there will be units available to the public to unravel all of the scrambled messages; some such units are already available.

Basically, the public's interest is there because energy is the one thing which appears regularly in the daily news, and communications relating to energy and environmental stability are fascinating to listen in on-- emergency crews putting things back together after a storm or blackout; security patrols; and the general operations of all companies involved in finding, developing, and bringing us our electricity, or natural gas, or petroleum energy.

In ENERGY-SCAN I have assembled data on what I think are potentially the most interesting frequencies relating to this spectacular and vital industry in all of its myriad aspects. In this edition I have made *no* attempt to include data relating to the coal industry, to water/irrigation utilities, to retail establishments dispensing consumer sized rations of gasoline, home heating oil, butane or propane; or frequencies used for motor/rail transport of oil/gas products. Taking this into account, I have otherwise attempted to be comprehensive. If I have somehow left out some oil producer or electric power utility, etc. I would appreciate hearing about it so that I can rectify the omission in the next edition. I'd also like to hear from readers about any errors which may have crept into the data herein.

SECRECY OF COMMUNICATIONS

I would remind all readers that all communications sent out over all frequencies in this publication fall under the "secrecy of communications" provisions of the Communications Act of 1934, Section 605. You can listen to them for your own personal enjoyment, but you can't reveal the contents of the transmissions you overhear to anyone else, or personally benefit from any information you might hear. I suggest that all users of this publication obtain a copy of Section 605 of the Communications Act in order to become completely familiar with it.

Stations operating in various areas of the energy industries are licensed in more than a dozen FCC radio services within the operational range of scanners; roughly 30 MHz to 850 MHz (although specialized scanners are required for certain segments within the overall band noted). Most of the popularly available scanners cover the low band (30 to 50 MHz), the high band (150 to 174 MHz) and the UHF band (450 to 512 MHz). Scanners are also available for the 108 to 136 MHz VHF aeronautical band, the "new" 800 MHz band, and other assorted bands/frequencies, such as the federal band below 420 MHz. I recommend the use of quality scanners such as those produced by Radio Shack, Regency, Electra (Bearcat), and Russell Industries. If the scanner is installed at a fixed location ("base station"), use it with an external antenna mounted as high as possible and away from power lines and large buildings.

Operations noted between 156.275 MHz and 157.025 MHz are concerned with maritime activities, either on shipboard, at dockside, or at an offshore facility. Communications between 117

and 124 MHz in this publication are used by aviation interests, including ground stations used for communicating with aircraft and/or helicopters.

Oil tankers are now required to use 2-way radio between the vessel and the shore while oil is being transferred; this to help in preventing spills. Some of the more popular frequencies used for this purpose include special low-power channels (also popular with security patrols and others using hand-held units) such as 30.84, 33.12, 33.40, 35.02, 42.98, 154.57, 154.60, and 457.525 MHz. Vessels may also use certain UHF channels for this purpose but most of these communications are very short-range.

Let me also point out that some energy communications are outside the range of frequencies I cover in ENERGY-SCAN. For instance, tankers on the high seas will use many voice and CW (code) frequencies below 25 MHz. Some communications between shore stations and offshore rigs also take place outside the operational range of a scanner; these include: 2292, 2398, 4637½ kHz, as well as 25.12 to 25.32 MHz. These frequencies require a shortwave communications in order to hear the communications taking place; all transmissions are via Single Sideband voice mode.

SHORTHAND

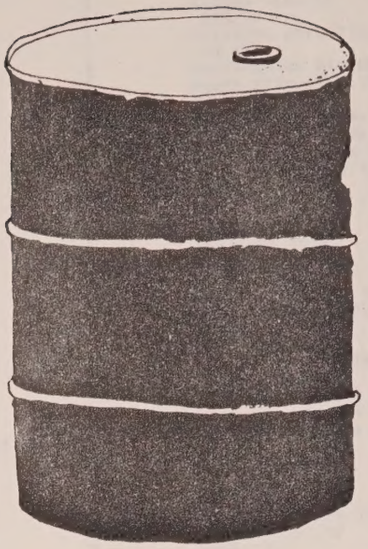
In this publication I have shortened a few of the more commonly encountered wordings, such as "P&L" for "Power & Light." Other similar ones which you will encounter include:

CNTY = County
EC = Electric Co-op
ELEC = Electric Company
EMC = Electric Membership Co-op
PUB SVC = Public Service
REC = Rural Electric Co-op
REMC = Rural Electric Membership Co-op
UTIL = Utility/Utilities

I have also used the word "PORT" to describe certain communications facilities. This is a catch-all term implemented to denote various Port Authorities, Harbor Masters and Authorities, and other maritime agencies which include within their operational scope, an interest in the safety, security, and environmental factors of waterways within their jurisdiction.

PETROLEUM INDUSTRY STUFF

ENERGY-SCAN covers gutsy little independent companies as well as the more awesome major conglomerate corporations; a listen to these frequencies permits you to hear



the vast and sweeping scope of this most colorful of all industries-- the wildcat drillers, the oil searchers, the "roughnecks," oilfield service operations, pipeline facilities, crusty tanker captains, and the rest.

Back in 1947, when the FCC still looked upon frequencies above 30 MHz as a spot for experimenters to develop new uses for radio, I stumbled upon my very first oilfield station-- W5XUN on 31.54 MHz from Texas, heard via 1,400 mile "skip." I sent him a card saying I had heard him; and he took the time to reply and ask for more reports! Since then I've been able to obtain quite a few prized verifications, and when I spent 6 months in Oklahoma in late 1961 I was able to rack up numerous fine loggings. And even since then, back in the East, I can still manage to punch a few favorite oil industry frequencies into my scanner whenever the "skip" is rolling in from the oil producing areas-- sharing the excitement of hearing them report a new "find" or even listening to the guys on the offshore rigs griping about the lonley jobs they hold-- it's almost like being a part of the action!

One last word, and that is that the majority of the frequencies shown in ENERGY-SCAN are in no way to be construed as being assigned to any company on an exclusive basis in any given area. For the most part, frequencies are shared by any number of licensees and you're quite likely to hear more than one user per frequency, in fact several users!

Let ENERGY-SCAN unlock the doors to this exciting world to you, hear its moods and problems, triumphs and tribulations. Good listening!

ALL AREAS

BROWN & ROOT 156.95
CHEVRON OIL 122,9 156.45 156.6Ø
CONOCO 156.9Ø
ENVIRNMNTL PROT AGCY (US) 41.63 156.3Ø 156.5Ø 156.6Ø 156.9Ø 157.Ø75 157.125 157.25 157.3Ø 163.435 164,45 165.41 173.86
GENERAL ELECTRIC 35.Ø2 151.625
DEPT OF ENERGY (US) 34.Ø3 34.86 41.31 117.975 148.47 156.3Ø 156.35 156.4Ø 156.425 156.475 156.5Ø 156.525 156.575 156.6Ø 156.625 156.65 156.675 156.7Ø 156.725 156.9Ø 156.925 156.95 156.975 157.ØØ 157.Ø25 157.Ø5 157.1Ø 157.15 157.175 157.225 157.25 157.3Ø 162.1Ø 163.775 164,225 164.25 164.275 164.325 164.35 164,375 164.4Ø 164.75 165.85 167.825 167.85 167.875 167.975 17Ø.35 171.2Ø 171.26 171.95 172.7Ø 173.ØØ 41Ø.ØØ 41Ø.35 41Ø.8Ø 411.15 411.2Ø 411.6Ø 412.375 412.7Ø 412.75 413.8Ø 413.85 413.95 416.3Ø 416.35 416.4Ø 416.45 416.5Ø 417.975 418.Ø5 418,575
EXXON OIL 156.45
GULF OIL 156.325 156.975
GUZZETTA OFFSHORE 156.35 156.675
MARATHON OIL 156.9Ø
MOBIL OIL 123,Ø5 123.Ø75 157.Ø25 457.525
NUCLEAR REGUL COMMISSION (US) 169.1Ø
NUCLEAR REGULATORY COMMISSION EMERGENCIES: 168.Ø5 168.2Ø 168.6Ø 168.625 17Ø.ØØ
TENN VLY AUTH 38,95 4Ø,ØØ 4Ø.Ø5 4Ø.55 4Ø.6Ø 4Ø.65 4Ø.75 4Ø.85 117.975 156.6Ø 156.65 156.7Ø 157.125 157.3Ø 163.Ø5 163.15 164.25 164.585 164.61 164.685 166.275 166.325 166.825 166.875 167.Ø25 167.Ø75 167.15 168.325 17Ø.Ø25 17Ø.Ø5 17Ø.Ø75 171.65 172.Ø25 172.425 173.Ø5 411.825 417.3Ø 417.35 417.5Ø 417.8Ø 419.875
TEXACO 156.5Ø

GENERAL FREQUENCIES

U S COAST GUARD 157.Ø5 157.1Ø 157.15
ENVIRONMENTAL 122.925 156.75
OIL SPILL CLEANUP 36.25 41.71 15Ø.98 154.585 156.255 158.445 159.48 454.ØØ 459.ØØ
TANKERS/OFFSHORE RIGS/COASTAL REFINERIES 156.35 156.375 156.4Ø 156.45 156.5Ø 156.55 156.875 156.9Ø 156.95 156.975 157.Ø25 157,425

A L A B A M A

ALA EC 48.5Ø 158.235 451.Ø5 451.125 451.2Ø
ALA GAS 153.515 158.16 158.25
ALA HUNTSVL UTIL 158.145 158.265
ALA POWER CO 37.58 37.76 37.8Ø 37.82 37.86 153.56 153.6Ø5 153.665 153.725 157.175 158.235 156.5Ø 17Ø.325 451.15 451.2Ø 451.25
(NUCLEAR POWER FACILITY "FARLEY #1" AT DOTHAN ALSO USES THESE FREQS)
ALA, STATE OF 47.9Ø
DEPT ELEC 153.59 153.695
DEPT MARINE RESOURCES 159.315 159.42 159.45
DEPT NATURAL GAS 456.15
DEPT STATE DOCKS 158.865
DEPT STATE PORTS 156.6Ø 156.7Ø 156.275 156.325 156.675 156.725
ALA-TENN NATURAL GAS 48.78
ALBERTVILLE MUNI 48.34
AMERADA HESS 48.98
AMOCO 35.94 47.56 47.6Ø 151.865 456.275
ANDALUSIA MUNI 153.5Ø
ARAB EC 37.82
ARCO 49.16 49.5Ø
ATHENS MUNI 158.19
BALDWIN CNTY EMC 158.16
BESSEMER EC 48.46
BIRMINGHAM MUNI 153.44 153.47
BLACK WARRIOR EMC 37.74
BOAZ MUNI 173.3Ø
BROWN & ROOT 3Ø.58 151.49
CENTRAL ALA EC 48.1Ø
CHEROKEE EC 48.5Ø
CHEVRON 451.75
CHILDERSBURG MUNI 158.235
CHOCTAW HOLDINGS 48.85
CHOCTAWHATCHEE EC 158.19
CHOYA DRILLING 49.44
CITIES SERVICE 152.87
CITRONELLE MOBILE GATHERING 49.ØØ
CLARKE/MOBILE CNITES 47.8Ø
CLARKE-WASH EMC 37.62
COLONIAL PIPELINE 49.4Ø
CONECUH MONROE CNTIES GAS 153.485
COOSA VALLEY EC 158.34
COVINGTON EC 451.25
CULLMAN EMC 47.8Ø 48.42
CULLMAN JEFF CNTY GAS 37.78
DECATUR MUNI
ELEC 451.Ø25
NATURAL GAS 451.15
DEKALB CHEROKEE CNTY NAT GAS 48.22
DIXIE EC 153.62
DIXIE PIPELINE 48.76
DOTHAN MUNI 47.72
E CENTRAL ALA GAS 47.7Ø
ENVRNMNTL PROT AGCY (US) 164.45
EXXON 33.36
FLORENCE MUNI 451.Ø5 451.2Ø 451.675
FLA GAS TRANSM 49.2Ø
FOLEY MUNI 153.47 153.5Ø
FT PAYNE IMPROV AUTH 456.Ø25
FRANKLIN EC 153.53
GADSDEN EC 153.62
GA POWER CO 451.25
GENERAL ELECTRIC 462.ØØ 462.175
GETTY 48.64
GULF 48.64 49.Ø2
GUNTERSVILLE MUNI 153.68
GUZZETTA OIL 156.9Ø
HALLIBURTON RESOURCE MGT 47,44 152.42
MARDEE OILFIELD CONSTR 49.ØØ
HUMBLE 48.86 461.Ø375
HUNTSVILLE MUNI 158.145 452.2Ø
JASPER MUNI 158.19
JOE WHEELER EMC 47.74
LAMAR CNTY GAS 48.ØØ
MARINE ENVRMNTL SCI 156.425
MARSHALL CNTY GAS 37.74
MARSHALL DEKALB EC 153.5Ø
MICHAEL DRILLING 151.955
MOBILE MUNI 456.Ø5
MOBILE CNTY GAS 47.8Ø
MOBILE GAS SVC 153.41 153.695
MONTGOMERY MUNI 153.41
N ALA EC 37.7Ø 173.35
N W ALA GAS 48.26
PEA RIVER EC 47.78
PEOPLES EC 153.71
PHILLIPS 33.38
PHENIX CITY MUNI 153.635
PICKENS CNTY 48.2Ø
PIONEER EC 153.68
PLACID OIL 49.14
PLANTATION PIPELINE 47.62
PLEASANT GROVE MUNI 451.15
RESOURCE INDUSTR 152.36
RIGGING INT'L 151.925
SAND MTN EC 153.53 451.175 451.2Ø
SHORT DRILLING 463.35
S ALA EC 48.14
S GA NAT GAS 158.145
S E ALA GAS DIST 47.9Ø 456.Ø5
SOUTHERN ELEC GENERATING 37.86 173.35
SOUTHERN ENERGY CO 151.535 451.225
SOUTHERN NAT GAS 49.Ø6 153.365 451.55 453.55
SOUTHERN PINE EC 153.44
SUN OIL 31.84 47.58 47.6Ø 49.58 154.49
SYLACAUGA UTIL 153.545
TALLAPOOSA RIVER EC 37.66 457.1Ø
TENNECO 33.26
TENN VLY AUTH 38.98 4Ø.62 4Ø.74 156.35 156.6Ø 156.7Ø 162.Ø25 163.Ø5 163.125 163.15 163.175 163.375 164.25 166.225 166.275 166.325 166.375 166.655 166.825 167.175 168.225 169.45 169.475 17Ø.Ø25 17Ø.Ø5 17Ø.Ø75 17Ø.15 171.7Ø 171.875 171.9Ø 172.Ø25 172.425 172.75 173.76 4Ø6.125 4Ø6.175 4Ø8.575 4Ø9.725 411.625 411.775 411.825 411.875 412.375 412.625 412.675 412.725 415.Ø75 417.775 417.825 417.975 419.875 419.95
(NUCLEAR POWER FACILITIES AT BROWNS FERRY OPERATE 162.Ø25 163.375 164.25 167.175 168.225 17Ø.15 172.Ø25 4Ø6.125 4Ø8.575 411.825 412.375 412.625 417.975 419.95)
TERRA RESOURCES 153.275
TEXACO 451.55
TEXAS EASTERN 48.94
TOMBIGEE EC 37.7Ø
TRANSCONTINENTAL PIPELINE 48.74
TRIANGLE REFINERIES 158.37
UNION OIL 461.5625 461.7125 461.8125 461.9125 466.5625 466.7125 466.8125 466.9125
WARRIOR DRILLING 43.Ø4 49.1Ø
WARRIOR RIVER AUTH 158.145
WESTINGHOUSE 464.ØØ
WILCOX CNTY GAS 153.425
WIREGRASS EC 47.98

A R I Z O N A

AMOCO 153.Ø8
ARCO 49.12
AZ DRILLING & EXPLOR 463.35
AZ ELEC PWR COOP 47.72 48.48 451.Ø75
AZ PUBL SERVICE 47,92 153.41 153.425 153.44 153.485 153,59 154,57 173.3Ø 451,Ø75 451.125 451.15 452.Ø5 462.85
AZ STATE FISH/GAME 151.46
BECHTEL CO 151.55
BLACK MESA PIPELINE 157.62 158.43 452.375
BLACK MTN GAS 48.18
CHEVRON 451.6Ø
CITIES SERVICE 151.58 157.74 158.28 173.21
CITIZENS UTILITIES 35.16 47.74 47.82 48.26
CONTINENTAL DIVIDE ELEC 153.47
DOBAR PETROLEUM 461.45
EL PASO NAT GAS 48.74
ELEC DIST 2 PINAL CNTY 48.Ø6
ELEC DIST 4 PINAL CNTY 155.88
GENERAL ELECTRIC 35.94 461.5Ø 463.45 463.725 464.8Ø 856.Ø375
GRAHAM CNTY EC 153.68
GULF OIL 461.Ø5
KERR MCGEE 48.96
MARICOPA CNTY 47.86
MESA CITY OF 153.47
MOHAVE EC 47.74 48.24 48.5Ø
MORENCI WATER & ELEC 153.65
NAVAJO TRIBE UTIL 153.65
NAVOPACHE EC 158.25 452.35
NEW APACHE EC 158.25
PAN AMERICAN PETRO 153.Ø8
PARKER DAM PROJ 166.635 166.925 168.125 17Ø.Ø75 172.775 4Ø6.55 4Ø8.525 4Ø9.Ø75 411.825 412.ØØ 414.825 415.125 415.175 417.925
PHOENIX CITY OF 153.68 158.13
ROYAL CREST OIL 3Ø.7Ø
SAFFORD CITY OF 153.47
SALT RIVER PROJ 153.62 153.635 153.71 158.19 171.925 451.Ø5 451.25 457.5Ø
SHELL OIL 48.78 151.565 462.175
SOHIO 173.235
SOUTHERN PACIF PIPELINES 153.11 451.6Ø
SOUTHERN UNION GAS 153.29 158.31
SOUTHWEST GAS 48.62
SULPHUR SPGS VLY EC 153.53 158.13
TENNECO 463.875
TRANSWESTERN PIPELINE CO 153.2Ø
TRICO EC 153.5Ø
TUCSON CITY OF 153.65
TUCSON G&E 48.Ø2 153.47 153,725 158.175 451.Ø25
UNION OIL 451.675
WELLTON TOWN OF 153.56
WESTERN AREA PWR ADMIN 167.85 168.45 413.8Ø
WESTINGHOUSE 462.125
YUMA CITY OF 173.35
YUMA PROJECT 164.2Ø 164.725 412,3Ø 412,375 419.825

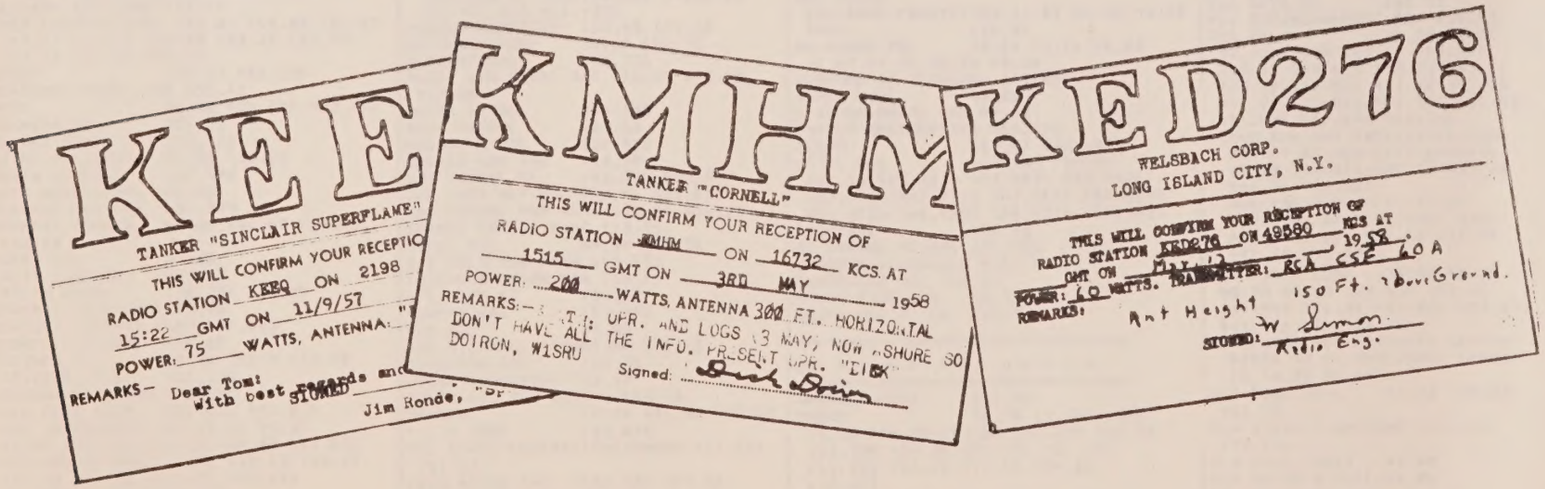
A R K A N S A S

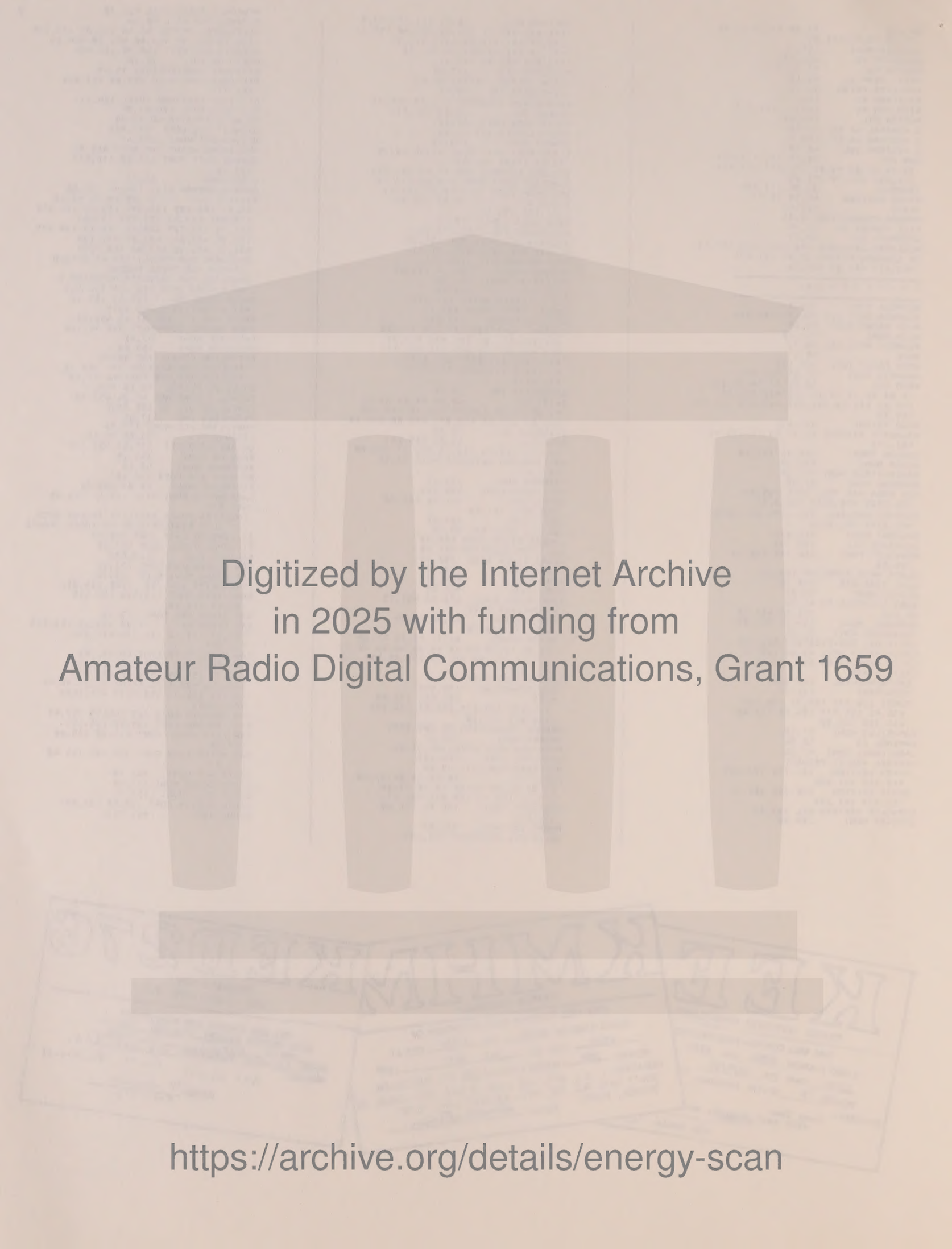
AMOCO OIL 48,6Ø 153.68
ARCO OIL 153,68
ARGO DRILLING 35.4Ø
ARK EC 47.96
ARK-LA GAS 3Ø,82 153.41 153,47 153.65 451.15 452.Ø5 457.75
ARK-MO POWER 158.2Ø5 158.25
ARK-OK GAS 48.54
ARK PWR & LIGHT 37.54 37.7Ø 37.76 156,35 156,55 156.7Ø 451.Ø75 451,1Ø 451,125 451.25
(NUCLEAR POWER UNITS AT RUSSELLVL OPERATE 37,54 451.Ø75 451.1Ø 451,125)
ARK STATE FISH/GAME 151.175 151,385 159,33 159,42
ARK VLY EC 153.59
ARK WESTERN GAS 33.18 37,48
ASHLEY CHICOT EC 48.18
BECHTEL CONSTR 151,5Ø 152,9Ø
BEEBE DRILLING 33,2Ø
BERRY PETRO 153,11
BIBBY PROD & SVC 49,ØØ
C&L REC 153,71
CALVERT EXPLORATION 153,275
CARROLL EC 158.19
CLAY CNTY EC 37.5Ø
CONOCO OIL 153.29
CONWAY OIL 153,53
CORNWELL OIL FIELD SVC 35.36
CRAIGHEAD EC 47,94
EMPIRE DISTR ELEC 48,16 48.24 48,3Ø 48.36
FARMERS EC 47.48
FAYETTEVILLE MUNI 153.41
FERGUSON ENERGY CORP 49,3Ø
FIRST EC 153.71
FT SMITH GAS 48,54
GENERAL ELECTRIC 151.925
HALLIBURTON RESOURCE MGT 47.44
HELENA PORT TERMINAL 156.5Ø 156.7Ø
HORTON PETRO 48.62
JONESBORO MUNI 158.13
KERR MCGEE 157.68
LAYTON OIL 33.32
LITTLE ROCK MUNI 158.13
PORT AUTH 156.35 156.7Ø
LA-NV TRANSIT 153,44
MCFARLANE CO 451,175
MID-VLY PIPELINE 158,43 173.39
MISS RIVER TRANSMISSION 48.82 451,7Ø
MOBIL OIL 158.16
MONSANTO 33.22 153.Ø8 153.17
MURPHY OIL 123,Ø
N ARK EC 37,8Ø 37.86
NATURAL GAS PIPELINE AMER 33,3Ø
NV OIL OPERATORS 153,245
N LITTLE ROCK MUNI 158,175
OK ELECTRIC CO 37.72 37.74 37.78 37.82

OK G&E 37.64 37.72 37.74 37.78 37.82 451.Ø5
OSCEOLA MUNI 153.71
OUACHITA EC 451.25
OZARKS EC 37.6Ø 37.66
PETIT JEAN EC 48.18
PHILLIPS PETRO 33,38
RICELAND EC 153.71
RICH MTN EC 153.71 158.175
RUSTEX OIL 153,Ø65
S CENTRAL AR EC 47.9Ø
S WESTERN AR EC 153.71
S WESTERN G&E 48.1Ø
SUN OIL 3Ø.58 33.34 35.74 35,94 43,Ø8 49,Ø2 151,535 151.655 151,895 152.3Ø 153.Ø2
TENNECO 33,26 173.395
TEXAS EASTERN 48,9Ø 48.94
TOSCO 159,48
URBANA PRODUCTION 48.86
WILL PONDER EC 47,96
WOODRUFF EC 37,82
WOHLFORD-JENNINGS GAS CNSLTNTS 463.5Ø
76 COMMUNICATIONS 35.Ø4 151,625 463,675 464,Ø5 464.5Ø

C A L I F O R N I A

ALAMEDA MUNI 153.53
ALAMEDA CNTY AIR POLLTN 155.955
ALEX BROWN ELEC 48,ØØ
ALTA MUNI 451.1Ø
ALAMEDA HESS OIL 48.72
AMCO 49,12
AMER PACIF INTL 451.625
ANAHEIM MUNI 47,94 451,475
ARCO OIL 3Ø.84 33.14 35.Ø2 42,98 49,12 49.14 156.425 156.45 156.55 451,7Ø 451,725 462.425 463.725 464.55
ARGO PETROL 451.475
ATLANTIC RICHFLD 49,12 49.14 158.43 461.175
AVALON PORT 156,45 156,5Ø
AZUSA MUNI 451.1Ø
BAKERSFIELD MUNI 451.25
BANNING MUNI 47.9Ø
BAY AREA AIR POLL CNTL 155,Ø4 488,5125 488,9625 489.5125
BECHTEL NUCLEAR 461.1125 461.1625 461.2125 461.3125
BELMONT MUNI 451.Ø75
BELRIDGE OIL 158.325
BERKELEY PORT 156,425 156,45 156,6Ø
BLACK MESA PIPELINE 158,45
BLUE STAR GAS 158,16
BLYTHE MUNI 48,Ø2
BOBS OILFIELD CO 47,6Ø
BP OIL 451,65 452,45
BURBANK MUNI 154.57 451.Ø5
CALAVERAS CNTY 37,64
CALIF OIL PURIFICATION 451.575
CALIF PACIF UTIL 48,Ø6 158,34
CALIF PRODUCTION SVC 153.35
CALIF STATE
ENVIRONMENTAL 122,925
FISH/GAME 151,43
PORTS 156,275 156,35 156,425 156,45 156,475 156,5Ø 156,6Ø 156,725 156.9Ø
CAMARILLO MUNI 47.78
CAMINOL CO 48.86
CARMICHAEL MUNI 47,86
CENTRAL VALLEY PROJECT
NORTH SECTION 171,775 172.425 415,125 417,475
SOUTH SECTION 166.325 166,35 166,925 167,175
CHANSLOR WESTERN OIL 153.32
CHESTER MUNI 154,46
CHEVRON OIL 48,66 122,75 122,9 151,Ø35 154,57 154,6Ø 156,6Ø 158,31 158,34 451,225 451.375 451.55 451,75 451,8Ø 461.2Ø 461.7Ø 462,525 462.85 464.35
CITIZENS UTIL 153.5Ø
CLEAN COASTAL WATERS 48,62
CLEAN SEAS INC 48.62
COMBUSTION ENGNERNG 452.ØØ 464.55
CONOCO OIL 49,ØØ 451.225
COSTA MESA CNTY 47,8Ø
DOE OILFIELD SVC 47.56
DOWNEY MUNI 153.68
E BAY MUNI UTIL DIST 47.96 48.26 48,52 (FIRE 46.38)
ECOLOGY CONTROL INC 49.58 461.225
ELDORADO CNTY PORT 156.85 157.1Ø
ENVIRONM PROT AGCY 4Ø.97 167.19
EXXON OIL 48.88 156.45 451.625 451,65
FAIR OAKS MUNI 48.12
FALLBROOK PUB UTIL 173.25
FLURRYS OIL WELL SVC 451,9Ø
FLURYS OIL WELL SVC 31.32
FRED HOLMES OIL 153.165
FRESNO MUNI 48.14 153,41
FULLERTON MUNI 47.78
GAGE OIL 37.78
G&G OILFIELD MAINT 451,975
GARDEN GROVE MUNI 153,71
GAVILAN PETROL 153.Ø35
GENERAL ELECTRIC 151.715 153.Ø8 461.Ø75 461.65 462.Ø25 463.35 463.475 463.7Ø 464.Ø25 464.175 851.1375 851.8875 852.Ø125 852.Ø625 852.Ø875 852.2875 852.9625
GEONOMICS INC 33.18
GETTY OIL 48.56 48.68 48,76 49,Ø6 49,32 154,48 158,31 173,285 451,65 451,85 452.Ø75 454,ØØ 459,ØØ
GLENDALE MUNI 47.98
GULF OIL 49.Ø2 153.125 153,25 153,29 153,32 154,57 463,8Ø
HALLIBURTON RESOURCE MNTC 47,44 451,95
HAYWARD MUNI 153,62
HOLLYWOOD MUNI 456.575
HUMBLE OIL 451.6Ø 451.7Ø 46Ø,9875 462.9Ø
INDIO MUNI 153,65
J&G OIL WELL SVC 49,58
LAWEAN RIVER ASSN 456.2Ø
KCL COMMUNICATION 451.25
KINGS RIVER ASSN 451.15
LINDA MUNI 153,47
LION OIL 158,31
LODI MUNI 451.Ø5
LONG BEACH MUNI 153,62 451,15
LOS ANGELES CITY
PORT/HARBOR 45,62 45.74 156,275 156,7Ø
WATER/POWER 47,74 47,76 47.8Ø 47,86 47.96 48,3Ø 48.36 48,42 48,52 153,47 153,59 173.25 173.35 451,125 471,3125
LOS ANGELES CNTY
ENVIRONMENTAL 122,925
PORT 156,425 156,45 156,475 156,575 156,6Ø 156,925 156,975 157,1Ø
MADDOX PRODUCTION CO 5Ø8,8875
MADERA MUNI 451,25
MAGGIORA BROS DRILLING 35.82
MARTINEZ PORT 156,425
MILLBRAE PUB UTIL 48,2Ø
MOBIL OIL 3Ø.8Ø 3Ø.84 33.4Ø 35,Ø2 42,98 48.6Ø 48.7Ø 48,98 153,11 153,23 158.835 451,175
MONTEREY PORT 156,45 156.6Ø 156,675
MORRO BAY MUNI 452.8Ø
NELCO OIL REFINERY 153.155
NEWSON & ASSOCIATES 451.7Ø
N TAHOE PUB UTIL 48.24
OCCIDENTAL PETROL 47.48 123.Ø5 153.185 158.28 461,55 463.5Ø 463.8Ø 464.15
OCEANIC SOCIETY 156.35 156.425
ODECO UK INC 3Ø.7Ø
OFFSHORE CONSTRUCTORS 49,4Ø
OILFIELD CONSTR CO 452.ØØ 452,Ø25 461.775
OILFIELD ENVIRONM CNTRL 154.515
OILFIELD PROD SVC 43.Ø6
OILWELL SERVICE CO 33.26
OILWEST SVC CORP 152.885
OLIVEHURST MUNI 153.47
OMNITRANS JOINT PWR AUTH 452.65
ORANGE CNTY PORT 156.6Ø 156.675 157,1Ø
OTAY MUNI 48,38
OXNARD HARBOR DIST 156.45 156.6Ø
PACIFIC G&E 47.8Ø 48,36 48.42 48,82 153,485 153.545 153,56 153.575 153,6Ø5 153,62 153.635 153,65 153,71 153,725 156.35 158.13 158.175 158.25 451,Ø25 451,Ø5 451.125 451.15 451.2Ø 452.9Ø 468,7125 (NUCLEAR PWR FACILITIES AT DIABLO CANYON USE THESE FREQS) (NUCLEAR PWR FACILITY HUMBOLDT 3 AT EUREKA USES 158.175 158.25)
PACIF LIGHTING SV 153,41 153.47 451,Ø5 461,8875 466,8875
PACIF PWR & LIGHT 37,58 456.1Ø
PALM DESERT COMMUNITY SVC 451.1Ø
PARADISE MUNI 47,42
PASADENA MUNI 153,65
PETROLEUM CONSTR INC 49,56
PETROLEUM ENGINEERING INC 464,1Ø
PETROLEUM INDUSTR COASTAL 48,62
PHILLIPS PETROL 49.1Ø 154,47
PLUMAS SIERRA REC 48,34 452.4Ø
POWERLINE OIL CO 5Ø8.8135
PRODUCERS INC 37,56
PURISSIMA HLS MUNI 173,3Ø
PYRAMID OIL 49,Ø6 49,16
QUARRY PRODUCTS 451,85 452,175
REDDING MUNI 158,16
REDLANDS MUNI 48.14
REDONDO BCH PORT 156,6Ø
RIVERSIDE MUNI 48.Ø2 452.8Ø
SACRAMENTO MUNI UTIL 153.41 158.16 451,Ø75 (NUCLEAR POWER FACILITY RANCHO SECO AT CLAY STATION ALSO ON THESE FREQS)
SACRAMENTO CNTY PORT 156.45
ST JOHNS RIVER ASSN 451.2Ø
SALINAS MUNI 153,635
SAN BERNARDINO MUNI 153,59
SAN DIEGO MUNI ELEC 158,865 (SECURITY 154,785 FIRE 154.31)
SAN DIEGO PORT 155,895 156,425 156,6Ø 157,1Ø
SAN DIEGO PWR COMM 173.35
SAN DIEGO G&E 42.98 153,5Ø 153,575 153,65 153,71 158,235 451,525 451,625
SAN DIEGO PIPE LINE CO 451.6Ø
SAN FRANCISCO MUNI ELEC 155,22 155.34 155,745 453,2Ø 453,875 458,225 492,1125 (FIRE 46.18 46,46 154,28 154,43 488,3625 488,5625 488,7625)
SAN JOAQUIN CNTY AIR POLLTN 462,65
SAN LEANDRO PORT 156,6Ø 156,675
SAN LUIS OBSPO PORT 156,5Ø 156,6Ø 157,1Ø
SAN MATEO CNTY PORT 156,425 156.6Ø 156.675
SANTA ANA MUNI 451,2Ø
SANTA CLARA MUNI 153,44
SANTA CRUZ MUNI 153.41
SANTA MONICA PORT 156,6Ø 156,675
SCHUH BROS 451,925


KEE
TANKER "SINCLAIR SUPERFLAME"
THIS WILL CONFIRM YOUR RECEPTIO
RADIO STATION KEEQ ON 2198
15:22 GMT ON 11/9/57
POWER: 75 WATTS, ANTENNA:
REMARKS— Dear Tom: With best regards and
SIGNED
Jim Ronde, "DR
KMHM
TANKER "CORNELL"
THIS WILL CONFIRM YOUR RECEPTION OF
RADIO STATION KMHM ON 16732 KCS. AT
1515 GMT ON 3RD MAY 1958
POWER: 200 WATTS. ANTENNA 300 FT. HORIZONTAL
REMARKS:— T.I: OPR. AND LOGS 3 MAY, NOW ASHURE SO DON'T HAVE ALL THE INFO. PRESENT OPR. "DICK"
DOIRON, W1SRU
Signed:
KED276
WELSBACH CORP.
LONG ISLAND CITY, N.Y.
THIS WILL CONFIRM YOUR RECEPTION OF
RADIO STATION KRD276 ON 49580 KCS AT
GMT ON May 2 19 58
POWER: 60 WATTS. TRANSMITTER: RCA CSE 60 A
REMARKS: Ant Height 150 Ft. above Ground.
SIGNED:
Radio Eng.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https://archive.org/details/energy-scan

SHELL OIL 48,58 48.78 153.17 153,575 451,575 451.7Ø 451.825 451,975 462.25 462.675 49Ø.8375
SIERRA PACIF PWR 48.Ø2 48,16
SOHIO 173.235
S TAHOE PUB UTIL 153.53
S SAN FRAN PORT 156.6Ø 156.675
S CAL EDISON 37.8Ø 47,84 47.98 48,Ø4 48,12 48.16 153,41 153,62 158,13 158,145 158.15 158.16 158.175 158,19 158,2Ø 158,22 158,235 158.25 158.265 161,445 173.39 451.Ø25 451,2Ø 451,25 471,4125 (NUCLEAR POWER FACILITY SAN ONOFRE #1 AT SAN CLEMENTE USES 158.13 158.145 451.Ø25 451.2Ø 451.25)
S CAL GAS CO 153,41 153.425 153,44 153.455 153,47 153.485 153.515 153,53 153,545 153.56 153.6Ø5 451,Ø5 451.Ø75 461.8875
S CAL LIGHTING & PWR 464.225
S CAL PETRO CONT ORG 159,48 454.ØØ 459,ØØ
S PACIF PIPE LINES 451,6Ø 451,675
S W GAS CORP 48.67
STANDARD OIL OF CA 48.66 451.375 451,55 451,575 451.75
STATEX PETRO 153,Ø8 153,11 153,17 153,2Ø 153,23 153,26 153,29 153,32 153,35
STOCKTON PORT DIST 156.9Ø
SUN OIL 49.2Ø 153.125 158,325 158,825
SUNDE CO 153.23
SURPRISE VLY ELEC 153,44
SWEETWATER AUTH 153.665
TAHOE VLY UTIL 48.14
TELECOMM CO 451.55
TENNECO OIL 154.57 451.525 461,675 461,825 461,875 462.575 464,25
TEXACO 33.14 35.Ø2 35.14 153,Ø5 153,395 156,9Ø 462,475 463,8625 463.8875 463.9375 463.9625 463,9875
1ØØØ OAKS MUNI 48.24
THUMS LONG BCH CO 48,68 48.7Ø
TRUCKEE MUN UTIL 48.12
29 PALMS MUNI 153.68
UNION OIL 35.86 37,48 37,82 48,74 48.84 48.9Ø 153.Ø65 153.14 153,155 153.38 154,47 154,57 156.5Ø 156,6Ø 156.9Ø 158.37 173.395 451.175 451.225 451,525 451,6Ø 451.675 451,7Ø 454,ØØ 459,ØØ 463.6Ø 464,4Ø 465,7375
UNIV SO CAL MARINE SPPT FAC 156,45
VALLEJO PORT 156.9Ø
VENTURA CNTY PORT 156.6Ø 156,675 156.725
VICTORY OIL 451,675 451,85
WASH WATER & LIGHT 153.5Ø
WAYMIRE CO 451.275
WAYNE DRILLING 43,1Ø
WAYVER DRILLING 451,625
W BAY CONTRACTING 483,4625
WESTATES CONTRACTORS 851.1125
WESTERN AREA PWR ADMIN 41.67 138.575 138,525 14Ø.25 14Ø.125 14Ø,625 143.55 148,425 148,47 149,145 149.25 149,425 149,55 149,745 154,845 155,4Ø 162,225 163.375 164,225 164,275 164,325 164,35 164,375 164,475 164.7Ø 164.75 167,825 167,85 167,875 167.9Ø 167.925 167,975 168.ØØ 168,45 17Ø.Ø25 171,2Ø 171,95 173,ØØ 4Ø6,912 4Ø9,212 41Ø,35 41Ø,8Ø 411,Ø75 411,15 411,2Ø 411,6Ø 412,65 412,75 415,625 416,2Ø 416,25 416,4Ø 416,45 416,6Ø 416,65 416,712 416,75 419,15
WESTERN FUEL OIL 156.45 451.525
WESTINGHOUSE 154.54 154.74 461,25 461.275 461.55 461.975 462.2Ø
WITTE ENTERPRISES 451.275

C O L O R A D O

ALLISON DRILLING 153,11
AMER GEOPHYS DATA 153.Ø5 153.Ø8 153.11 153.14 153,17 153.2Ø 153.23 153.26 153.29 153.32 153.35
AMOCO 153.23 461.125
ARAPAHOE PIPE LINE 153,11
ARCO 49.1Ø 464.775 469.775
ASAMERA OIL 451,75
AURORA MUNI 153,515
AZTEC OIL/GAS 49.ØØ 452,65
BASIN PETROL 151.835
BETA DEVELOPMNT 48.9Ø
BUFFALO OIL/GAS 451.225
BURNETT CONSTR 42.96 157.68 452.Ø5 452.4Ø
BUSBY OIL 43.ØØ
CALIF LIQ GAS 462.1Ø
CATLIN CANAL 158.2Ø5 173.25
CENTRAL TELE/UTIL 47.86
CENTURY GEOPHYS CORP 151.685
CHAMPLIN PETROL 456.6Ø
CHEVRON OIL 48.76 122.9 173.2Ø
CITIZENS UTIL 451.125
COLEMAN DRILLING 153.185
COLO ELEC ASSN 451.Ø25 451.Ø75
COLO INTERSTATE GAS 48.82 49.34 49,42 173.375 452.1Ø 454.ØØ 462.Ø25
COLO SPRNGS MUNI 47,82 158.13 158.22 451,1Ø 451,15 451,475 452.975
COLO PETROL PROD 461.125
COLO STATE ENVIRONM AGCY 151.715 151,4Ø 151,445 151,46 151.475
COLO UTE ELEC ASSN 37.5Ø 48.48 451.Ø25 451.Ø75 451.Ø5 451.1Ø
CONOCO 49.ØØ 49.2Ø 153.Ø5 154.47
CRYSTAL OIL 462.475 463.7Ø
D J PETROL 462.Ø75
DAVIS OIL 153.3Ø5
DELTA MONTROSE REC 153.5Ø
DONZOIL INC 153.275
ED-NA INC 47.68
EMPIRE EC 37.74
ENERGY FUELS NUCLEAR 158.4Ø 463.2Ø 463.5Ø
ENVIRONM DEVELOPERS 452,6Ø 462,8Ø
ENVIRONM PROTECTION ADVSRS 35.1Ø
EXETER DRILLNG/EXPLOR 48,6Ø
FILTON EXPLORATION 153.Ø5 153.29
FT COLLINS MUNI 158,235
FT LYTON CANAL 158.16
FT MORGAN MUNI ENVIRM PD 156.75
FOUNTAIN MUNI 158.265
4 CORNERS DRILLING 153.275
GARY OPERATING CO 153.26 451,75
GENERAL ELECTRIC 461.975 464.Ø5 469.75
GEOSCIENCE PETROL 3Ø.7Ø 3Ø.74 3Ø.78 3Ø,82
GETTY OIL 461.35
GRAND VLY RURAL PWR LINES 47,72 451,1Ø
GREELEY GAS 153.485 153.545 451,2Ø
GULF OIL 33,3Ø 456,625
GUNNISON CNTY EC 47,7Ø 451,2Ø
HALLIBURTON CO 47,44
HIGHLINE ELECTRIC 153,59
HOLY CROSS ELEC 153.41 451.125
HOME LIGHT/PWR 153,76
HONDO OIL/GAS 48.56
INEXCO OIL 153.215
INTERMOUNTAIN REC 37.58
J W OPERATING CO 33.24
JOHNSON/JOHNSON OIL FLD SVC 464.35
K C ELECTRIC ASSN 153,47
KANS-NEBR NATRL GAS 37.5Ø
LA JUNTA MUNI 173.2Ø
LA PLATA EC 47.86
LAMAR MUNI 158.25
LONGMONT MUNI ELEC 158.19
LOVELAND MUNI 153.47 (ENVIRONM PD 156,75)
MCKINLEY OIL FLD SVC 43.32
MERCHANTS OIL 463.55
MOBIL OIL 452.325
MONUMENT MUNI 173.395
MOON LAKE EC 153.41
MORGAN CNTY REC 43.4Ø 153.53 158.2Ø5
MORRISON CREEK MUNI 153.6Ø5
MOUNTAIN DRILLING CO 464,625
MOUNTAIN FUEL SUPPLY 48,24 48,72
MOUNTAIN GEOPHYS INC 153.Ø5 153.29
MOUNTAIN PARKS EC 153,65
MOUNTAIN VIEW EC 153,71
NAVAJO OIL FLD SVC 151.715
NORTHERN NATRL GAS 47.9Ø 48.26 158,145
NORTHWEST PIPELINE 48.86 451.35
OCCIDENTAL OIL 151.625 152.915 152,945 457.55 457.6Ø
OIL WELL PERFORATORS 463.9Ø
OILEX INDUSTRIES 153.Ø8 153,11 153,14
PACIF WEST EXPLORATION 153.Ø5 153.Ø8 153,11 153,14 153.17 153,2Ø 153,26 153.29 159,24
PANHANDLE EAST PIPE LINE 48,7Ø 173,2Ø
PERRY GAS PROCESSORS 153.215
PHILLIPS PETROL 33.38 47.6Ø 461.125
PLATTE RIVER PWR AUTH 451,275
POUDRE VLY REC 47.68 153.5Ø
POWER RESOURCES CORP 451,175
PRIDE OIL WELL SVC 451.475
PUB SVC CO OF COLO 47.94 48.1Ø 153,4Ø 153,44 153.635 153.68 451,25 451,375 451.425 457,225 (NUCLEAR PWR FACILITY FT VRAIN STATION AT PLATTEVILLE OPERATES ON 451,375 451,425)
PUEBLO MUNI/CNTY 153,59 173,35
REFINERY CORP 3Ø.8Ø 451.75
RESERVE OIL 158.325
ROCKY MTN NATRL GAS 158.19 173.3Ø 452,25
ROYAL PETROL 463.525
RYAN PETROL 463.35
SAGEHORN OIL 151.925
SALIDA GAS SVC 153.56
SAN ISABEL EC 153.695 451.Ø5
SAN LUIS VLY REC 153.41 153.635
SAN MIGUEL PWR ASSN 153,47 452,225
SANGRE CRISTO ELEC 173.25
SHELL OIL 48.54 153.26
S E COLO PWR ASSN 153.665
SOUTHERN UNION GAS 158.13
SPRINGER EC 153.62
SUMMIT GAS 153.245
SUN OIL 49.Ø6
SUN OIL WELL CEMENTING 464.15
SUPERIOR OIL 153.29
TERRA RESOURCES 33.22
TETER OIL FLD CONSTR 463.25
TEXACO 48,94 451.6Ø 452,3Ø
T L C CORP 153.Ø35
TRI STATE GENERATION/TRNSMN 451.525 451,575
TWIN ARROW INC 451.425 463.2Ø
UNION OIL OF CAL 451.55
UNION REC 37.86 154,465
UTAH P&L 153.71
UTILITIES SVC ENGNRNG 463.675
VAUGHEY BLACKBURN & VAUGHEY 49.5Ø
WALSENBURG MUNI 48.Ø2
WESTERN AREA PWR ADMIN 4Ø.47 155.85 164.225 164,275 164.4Ø 164.75 164.56 167.825 167.85 167.875 167.925 168,45 171.2Ø 171.95 4Ø8.935 4Ø9.2Ø 4Ø9.5Ø 41Ø.35 411.Ø25
WESTERN COLO PWR CO 48.1Ø
WESTERN CRUDE OIL 49.28 462.15
WESTERN FIELD SVC 154,54 464,775
WESTERN SLOPE GAS 49.48 153.365 153.44
WHITE RIVER EC 48.Ø6 158.22
WILLIS & PAUL 451.8Ø
YAMPA VLY ELEC 48.42 451.25 452.275
Y W ELEC ASSN 153.41
ZIMMERMAN GIL 464.575

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ASSOCIATED ENVIRNM SVC 43.44
ALGONQUIN GAS TRNSMSN 49.Ø2
AMERADA HESS 153.155
ARCO OIL 153,11
BOZRAH L&P 48.54
BRIDGEPORT PORT 156,65
BRIDGEPORT HYDRAULIC 48.18
BRISTOL MUNI 47.84
CHEVRON OIL 3Ø.62 31.44 31.48 35,76 35,86 47.52 154,54 152,9Ø 451,925 451,95 452.Ø25 464,85 457,6Ø
CILCO TERMINAL 154.515
CITIES SVC OIL 464.5125 469.5125
COMBUSTN ENGINRNG 158.415 462.275
CONN L&P 37.48 37.74 37.76 37.78 37.8Ø 48.16 48.52 154,46 451.2Ø (N E POWER GRID EMERG 47.62)
CONN NATRL GAS 37.56 47.76 48.3Ø 48.38 153.47 153.485 158,145
CONN STATE ENVIRONM PROT 44.68 44,72 44,76 44,92 159,45 453.55
CONN YANKEE ATOMIC PWR FACILITY AT HADDAM NECK 451.1Ø 451.15 (N E POWER GRID EMERG 47.62)
DEPT OF ENERGY (US) 164.225 164,275 167.825
FARMINGTON RIVER PWR 47,8Ø
GENERAL ELECTRIC 151.865 153.32 461.35 461.375 461.85
GROTON MUNI 48.3Ø
GULF OIL 49.Ø4
HAMPDEN OIL 153.185
HARTFORD ELEC LITE 47.9Ø 48.16 48.2Ø 48.34 48,4Ø 48.52 154.46 451.25 453.ØØ (N E PWR GRID EMERG 47.62)
INDUSTRIAL ENVIRONM SVC 462.125
JET LINES 48.64
METROPOLITAN DISTR 48.1Ø 153.5Ø
NEW ENGL POLLUTION CONTRL 158,835
NORTHEAST NUCLEAR ENERGY FACILITIES MILLSTONE 1 & 2 AT WATERFORD 37,74 451,Ø25 451.25
NORTHEAST UTIL 37.48 37.6Ø 37.74 37.76 37.8Ø 37.86 47.86 47.9Ø 47,98 48,16 48.2Ø 48.34 48.4Ø 48,52 462,875
NORWICH MUNI 153.59
SEA LAND ENVIRMNM ENGR 43.48 468,7125
SOUTHERN CONN GAS 158.18
TENNECO 48.66 153.335
3RD TAXING DISTR ELEC 153.65
UNITED ILLUMINATING 48.26 48.36 48,46 451,Ø75 451.15 451.2Ø (N E PWR GRID EMERG 47.62)
UNITED NUCLEAR CORP 153,35 158,415
WESTERN MASS ELEC 37,74 47,86 47,98 48,Ø4 48.16 48,34 451,1Ø

D E L A W A R E

AMOCO OIL 462.445
CHESAPEAKE UTIL 47.8Ø
DELAWARE EC 158,19
DEL STATE ENVIRONM PROTECTION 31,62 44.68 44,72 PORT 156,85
DELMARVA P&L 3Ø.84 33.14 35,Ø2 37,62 37,76 48.24 48,3Ø
DIAMOND ST TERMINAL 151.835
DOVER MUNI 48,Ø2
E SHORE NATRL GAS 47.8Ø
ENERGY ENGINEERING 463,325
EXXON 157,47 452,175
GETTY OIL 153,365 154,57 156,35 463,3375 463,4625 463,5875 463,7125 463,8375 463.9625 464,Ø875 464,2125 464,4625 466,8325 468.9625
GULF OIL 452.ØØ
DE LAUREL PETROL 151.565
LINCOLN ELLENDALE ELEC 47.76
PENINSULA OIL 152,93
SOHIO PIPELINE 48.5Ø
UNION OIL OF CA 158.37

D I S T O F C O L U M B I A

AMERADA HESS 151,49
AMOCO 3Ø,7Ø 33.18 48,6Ø 49,3Ø 15Ø.98 153.Ø8 153.125 153.23 153,335 158,28 451.225 451,275 452,325 452,4Ø 452,45 454,ØØ 49Ø,425
DEPT OF ENERGY (US) 162.Ø5 162.125 164,75 17Ø,125 171.2Ø 171.95 4Ø9.Ø25
DIST COLUMBIA MUNI UTIL 153.455 153,59 158,13
PORT 156,6Ø
EXXON OIL 151,595
GENERAL ELECTRIC 154.57 158.31 461.275 461.5Ø 462.3Ø 462.45 463.2Ø
MOBIL OIL 49,18 153,Ø5 153,11 153,14 153,17 153,2Ø 153,23 153,26 153,29 153,32 153,35 153,395 153.68 158,28 158,31 158,355 158,37 158,43 451,55 458,8Ø 461,4625 462,425
NUCLEAR REGULATORY COMSN 167.875
POTOMAC ELEC PWR 37.58 37,66 37.82 451.Ø25 451,Ø5 451,Ø75 451.125 451,15 451,235
STEUART PETROL 156,9Ø
SUPERIOR OIL 153.545 173,21 452,675
TESORO PETROL 451,175
WASH GAS LIGHT CO 47,9Ø 48,5Ø 153,68 173,2Ø 451,175 451.2Ø
WESTINGHOUSE 35.Ø4 151.725 461.275 461.375 461.55 461.8Ø 462.Ø25 462.Ø75 463.275 463.325 463.35 463.425 463.525 463.55 463.725 463.875 464.ØØ 464.125 464.15 464.225 464.3Ø 464.45 464.95 471.8625 471.9375

F L O R I D A

ALA EC 48.5Ø
AMERADA HESS 33.22
AMOCO OIL 456.275
ARCO 153.32
ATLANTA GAS LITE 48.14
BARROW OIL FLD SVCS 464.Ø25
BELCHER OIL 151.58 152.99 154.57 156.975 451.85 461.95 471.4875
BOYES GAS 451.175
BROWARD CNTY UTIL 173.2Ø 451.Ø5 452.7Ø 452.775 452.75
BROWN & ROOT 47.56
CENTR FLA EC 37.46
CENTR FLA GAS 451.175
CENTR FLA UTIL 153.455
CHEVRON OIL 153.11 452.725
CHOCTAW GAS 47.64
CHOCTAWHATCHEE EC 153.635
CITIES SVC OIL 464.5125
CITIES UTIL CONSTR CO 47.56
CITY ELEC SYST (KEY WEST) 47.98
CITY GAS CO 451.Ø75 451.225
CLAY EC 153.41 153.55 153.62 173.21 173.39
CLEARWATER MUNI PORT 153.53 156.425 156.45
COCOA MUNI 153.41
CONSOLID UTIL CONTR 451.9Ø 464.725
CROW DRILLING 48.66
DANMARK INC 158.445
DAVIE UTIL 153.725
DAYTONA BCH MUNI 153.56
DELAND MUNI 153.44
EAGLE UTIL CORP 153.545
EAU GALLIE MUNI 158.13
ECOLOGICAL UTIL 48.ØØ
EDGEWATER OIL 3Ø.64 152.885 461,1Ø
ELEC UTIL CONSTR 31.88
ENVIRONM ENTRPRS 472.Ø375
ENVIRNMNTL PROT AGCY 156.425 156.6Ø 156.7Ø 157.1Ø 164.45 41Ø.ØØ 413.8Ø
ESCAMBIA RIV EC 158.145
EXXON OIL 33.36 48.86 49.1Ø 451.55 451.6Ø
FIRST FLA UTIL 153.425
5 FLAGS PIPE LINE 158.175
FLA ECOLOGICAL CORP 452.Ø25
FLA GAS CO 158.16 158.175
FLA GAS TRANSM 49.2Ø 154.625
FLA KEYS ELEC ASSN 158.25
FLA KEYS EC 158.25
FLA OCEANOGRAPHIC SOC 156.45
FLA P&L 37.7Ø 37.74 37.82 37.86 153,53 153.445 153.62 153.665 153.71 158.25 173.2Ø 451.Ø25 451.1Ø 451.2Ø 451,25 451.275 451.375 451.425 451.475 451.675 462.525 (NUCLEAR PWR FACILITIES TURKEY PT AT FLA CITY OPERATES 37.7Ø 153.515 451.1Ø 451.2Ø 451.25 462.525 NUCLEAR PWR FACILITY ST LUCIE #1 AT FT PIERCE OPERATES 451.Ø25 451.1Ø 451.2Ø 451.25 451.375)
FLA POWER CORP 3Ø.96 48.24 48.28 48.38 153.635 154.46 154.465 156.35 451.Ø25 451.Ø75 451.425 451.525 (NUCLEAR PWR FACILITY CRYSTAL RIVER #3 AT RED LEVEL OPERATES 48.28 48.38)
FLA PUBL UTIL 47.78 158.235 451.15
FLA STATE FISH/GAME 151.415 172.275
FLA UTIL CONTR 43.4Ø
FLA WATER & UTIL 48.Ø4
FT LAUDERDALE MUNI 158.25 462.475 462.525

FT PIERCE MUNI 153.44 153.62 451.225
FUCO OIL/CHEM 43.12
GAINESVLL GAS 451.Ø25
GAS UTIL INC 153.47
GENERAL ELECTRIC 153.Ø8 153.23 461.Ø25 461.75 461.8Ø 463.4Ø 464.45
GLADES EC 37.78 456.925
GLADES GAS 47.64
GULF COAST EC 158.16
GENL DEVELP UTIL 461.6Ø
GULF INTERSTATE TERMNLS 152.975
GULF NATRL GAS 153.68 157.68
GULF OIL 49.Ø2
GULF PWR CO 153.425 153.56 153.59 153.665
GULFSTREAM UTIL 158.145
HALLIBURTON CO 47.44
HAMACH UTIL CONSTR 463.625
HEART UTIL CONSTR 463.225
HOLLYWOOD MUNI 455.7575
HOMESTEAD MUNI 153.6Ø5
HUMBLE OIL 48.86 157.74 451.55 46Ø.9875 461.Ø375
IMMOLAKEE UTIL 151.9Ø8
INTRACOASTAL UTIL 47.84
JACKSONVILLE MUNI UTIL 153.41 158.22 451.Ø5 451.15 451.175 451.225 451.625
JACKSONV PORT AUTH 155.Ø55 155.715
JACKSONV SPILLAGE CNTRL 461.625
JACKSONV SUBURB UTIL 451.Ø75
JAX UTIL CONSTR 451.925
KINGSLEY SVC 462.425
LK ALFRED NATRI GAS 47.8Ø
LAKELAND MUNI 37.5Ø 37.66 154.46
LATCO UTIL 151.55
LEE CNTY EC 153.425 153.485 153.68 153.695
MANATEE CNTY UTIL 153.65 453.65
MARATHON OIL 153.Ø95
MARGATE MUNI 158.19
MCCLOUD/WESTERMAN CONSTR 47.72
MELBOURNE MUNI 153.47
MID-FL SERVICE CORP 451.825
MILLER GAS 153.425
MOBIL OIL 151.535 153.29 154.6Ø
MODERN POLLUTION CNTRL 158.175
N E FLA UTIL 151.835
N MIAMI BCH MUNI 153.65
OCALA MUNI 153.47 451.Ø75 451.125
OHIO NUCLEAR 152.48 154.94 157.74
OKALOOSA CNTY GAS 48.18
OKEFENOKE REC 158.19
ORLANDO MUNI 158.2Ø5 158.265
PAHOKEE MUNI PORT 156.425 157.Ø25
PEACE RIVER EC 37.78
PENSACOLA MUNI 153.65
PEOPLES GAS 158.2Ø5 158.22
PHILLIPS PETROL 48.9Ø 156.45 158.415
PINELLAS CNTY 153.71
PT EVERGLADES AUTH 156.35 156.7Ø 156.9Ø 158.955
REEDY CREEK UTIL 464.8Ø
REX UTILITIES 153.56
RIVIERA BCH MUNI 173.39
ST PETE MUNI 153.41 451.275
SANLANDO UTIL 158.235
SARASOTA MUNI 158.13
SEBRING UTIL COMM 158.22
SHELL OIL 451.375 461.65
SIESTA KEYS UTIL 153.515
S E PWR ADMIN 46.47 138.61 14Ø.61 143.41 143.86 155.Ø4 164.225 167.85 168.45 171.2Ø 171.95
S E PWR CONSTR 43.18
SOUTHERN GAS 37.62
SOUTHERN G&E 37.62
SOUTHERN STATES UTIL 173.35
S W UTIL SYST 461.675
STANDARD OIL 151.955 158.43
SUMTER EC 37.78
SUNNILAND PIPE LINE 153.35 158.37
SUNRISE MUNI 456.625
SUPERIOR GAS 451.125
SUWANEE VLY EC 153.59
SUWANEE VLY REC 153.545
TALAHASSEE MUNI 153.53 153.44 153.695
TALQUIN EC 153.485
TAMARAC UTIL 47.86 451.225
TAMPA ELEC 153.485 153.59 153.6Ø5 158.175 173.2Ø5 173.25 451.15 451.225
TAMPA PORT AUTH 156.Ø15 156.5Ø 156.6Ø 156.7Ø 157.Ø25
TENNECO OIL 153.335
TEXACO OIL 43.Ø2
TRI-CNTY EC 37.5Ø 37.66 37.8Ø 452.275
TRI SOUTHERN UTIL 158.235
UNION OIL OF CA 158.23
UNIVERSAL ENVRNMNTL CNTRL 464.75
URANIUM RECOVRY CORP 153.Ø65
UTILITIES CONTRACTORS 47.7Ø
VENICE GDNS UTIL 37.52
VERO BCH MUNI 153.56 451.15
WATHLACOOCHEE RIV EC 37.58 37.84
W COAST UTIL CONSTR 152.96
W FLA EC 37.78
WESTINGHOUSE 153.Ø5 461.65 461.875 462.4Ø
W PASCO UTIL CORP 151.625

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ALA PWR CO 17Ø.325
ALBANY MUNI 153.6Ø5 153.65
ALICIA INC 158.46
ALTAMAHA EC 37.5Ø 153.575
AMERICUS MUNI 153.485
AMICALOLA EC 48.1Ø
AMOCO 35.94 151.835 151.865 451.55
ATHENS 153.59 154.49
ATLANTA MUNI 153.56 158.13
ATLANTA GAS LITE 47.54 47.76 47.98 48.Ø6 48.3Ø 48.54 153.59 451.15 451.375 462.475
AUGUSTA MINI 153.62
AUSTELL MUNI 47.82
AUTRY PETROL 151.715 157.74
BABCOCK & WILCOX 153.23
BARFIELD OIL & EQPT 47.52
BLUE RDG MTN EMC 451.Ø5
BRUNSWICK PORT 156.6Ø
CANOOCHEE EMC 47.82
CARROLL EMC 37.54
CENTRAL GA EC 153.47
CHEVRON 35.16 154.57
COASTAL EC 47.8Ø
COBB CNTY UTIL 48.26
COBB EMC 37.82 153.455 154.46
COLLEKE PK MUNI 154.375
COLONIAL OIL 152.93 154.515 158.235
COLONIAL PIPE LINE 49.4Ø 153.125
COLOQUITT CNTY REC 153.5Ø
COMBUSTION ENGRNG 151.565
COWETA FAYETTE EMC 153.41 158.145
CRISP CNTY PWR COMM 153.47
DADE CNTY UTIL 48.Ø4
DECATUR MUNI 153.575
DIXIE PIPE LINE 49.76
DOUGLAS CNTY EC 153.6Ø5
DOUGLAS MUNI 154.465
DRAKETOWN GAS 47.64
DUBLIN MUNI 173.35
E POINT MUNI 158.25
E POINT WATER/LITE 173.25
ELBERTON MUNI 153.53
ENVIRONMENTAL CONSTR 31.32
ENVIRONM PROT & SUPPLY 152.87
EXCELSIOR EMC 48.38
EXXON 35.52
FLINT EC 153.71
FOREST PARK MUNI 158.175
GA PWR CO 35.9Ø 37.48 37.56 37.62 37.64 37.68 37.7Ø 37.72 151.625 153.425 153.68 153.515 153.725 158.235 173.285 451.Ø5 451.Ø75 451.1Ø 451.125 451.225 451.275 451.425 451.475 451.525 451.575 451.625 457.575 467.75 467.825 467.925 (NUCLEAR PWR FACILITIES HATCH 1 & 2 AT BAXLEY USE 37.56 37.62 153.425 153.725 158.235 451.275 451.475)
GA STATE FISH/GAME 31.1Ø 31.14
PORTS AUTH 156.45 158.8Ø5
GEN ELECTRIC 151.745 153.26 461.6Ø 461.575 464.Ø75 464.25
GRADY CNTY EMC 48.3Ø
HUMBLE OIL 35.Ø6 42.98
JACKSON CNTY EMC 48.38 153.41 153.6Ø5
JEFF CNTY EMC 37.54
MARIETTA MUNI 153.65
MIDDLE GA EMC 153.62
MITCHELL CNTY EMC 37.54
MOBIL OIL 42.96 151.925 463.925
NEWNAN WATER/LITE 451.175
N GA EMC 47.74 48.36
OKEFENOKE REC 158.19
OCMULGEE EMC 47.96
OCONEE EMC 153.25 158.25
OGLLETHORPE EMC 154.465
OKEFENOKE EC 153.44
PLANTATION PIPE LINE 48.62 49.16 154.57
PLANTERS EMC 47.74
RAYLE EMC 37.82
SATILLA REMC 48.36
SAVANNAH ELEC/PWR 48.18
SAVANNAH PORT 158.8Ø5
SAWNEE EMC 48.14
SLASH PINE EMC 153.455
SNAPPNG SHLS EMC 158.2Ø5
S GA NATRL GAS 158.28 158.415 453.975
SUMTER EMC 47.7Ø 153.59
SUN OIL 31.6Ø 35.32 49.52
TENNECO 153.335
TENN VLY AUTH 166.655 169.5Ø 17Ø.225 171.9Ø
3 NORTH EMC 153.515
TRANSCONTNTL GAS PIPELN 48.74
TRI CNTY EMC 153.545
TROUP CNTY EC 153.65
WALTON EMC 153.71
WARN ROBINS MUNI 158.19
WASH CNTY EMC 153.455
WAYCROSS MUNI 48.4Ø
WESTINGHOUSE 35.88 35.9Ø

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AMER FLS RESERV #2 158.265
AMOCO 35.9Ø 461.85 463.75
BOISE PROJECT 48.Ø2
BURLINGTON MUNI 158.25
CENTRL SNAKE PROJ 169.1Ø 169.75 415.Ø75 419.875
CLEARWATER PWR 47.94 452.3Ø
CONTINENTAL OIL 151.955 157.62 453.275
DEPT OF ENERGY 4Ø.47 41.81 155.28 162.225 162.45 163.Ø8 163.175 163.275 163.375 163.46 163.75 163.835 164.175 164.25 164.325 164.375 164.4Ø 164.525 164.575 164.7Ø 164.775 164.96 165.71 166.225 166.325 166.875 167.825 167.85 167.875 167.925 167.975 168.225 168.325 168.45 169.Ø8 169.5Ø 171.2Ø 171.26 171.31 171.825 171.95 172.Ø25 172.475 172.525 172.575 173.175 173.56 173.61 173.635 173.71 173.76 173.785 4Ø6.225 4Ø6.375 4Ø6.85 4Ø7.Ø25 4Ø8.425 4Ø8.55 4Ø8.825 41Ø.35 411.Ø25 411.2Ø 411.6Ø 412.125 413.8Ø 413.85 413.95 415.15 416.4Ø 416.675 417.725
FALL RIVER REC 173.3Ø 451.2Ø
ID CNTY L&P 48.26
ID FALLS MUNI 158.25
ID PWR CO 153.53 153.56 153.579 153.59 153.635 154.57 173.2Ø5 173.395 452.225 457.15 457.25 457.4Ø
ID STATE ENVIRONM 151.145 159.255 159.33 159.39 159.45
INTERMNTN GAS 153.695 158.16 452.65
KOOTENAI EC 37.46 37.54 37.86
LOST RIVER EC 47.94
MINIDOKA PROJECT 158.19 164.2Ø 164.75 168.325 172.525
NEW ENGL PWR SVC 49.52 151.565
NORTHERN LITES INC 47.7Ø 48.34
N W PIPE LINE 48.86 451.6Ø
OWYHEE PROJ 153.47
PACIFIC GAS 48.82
PACIF P&L 151.59
PETROLANE RKY MTN GAS 43.Ø6 451.95
POWERLINE CONSTR CO 43.Ø6
PRARIE PWR COOP 48.46
RAFT RIVER REC 153.65
RURAL ELEC CO 153.44
SALMON RIV PROJ 47.94
SOUTHSIDE ELEC LINES 153.47
UNITY L&P 153.5Ø
UTAH P&L 153.545 153.62 153.71 452.25
WASH WATER/PWR 48.42 153.455 153.71

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ACME CASING PULLING 3326 153.185
ALDRIDGE ELEC 451.Ø25 464.Ø5
AMOCO 35.94 48.66 151.715 151.745 151.835 151.865 156.5Ø 158.13 158.415 451.375 451.5Ø 451.55 461.1625 462.475 462.525 463.95 464.5375 466.3375 469.5375
AMOCO PIPE LINE 49.14 451.375
AMOCO TEX REFINING 153.185
ANNA MUNI 153.62
ARCO OIL 463.9Ø 464.375 469.375
ARCO PIPE LINE 153.17
ARGONNE RESCH & DEVELP LAB 164.75 411.2Ø 418.Ø75 (FIRE-154.25 & 154265 EMERG-155.34 SECURITY 155.475)
BALDRIDGE DRILLNG 48.76
B&B OIL FLD CONSTR 157.62
BADGER PIPE LINE 464.45
BASIN SURVEYS 33.18
BEARD DRILLING 33.28 48.92
BOOTH OIL 153.365
CENTRL ILL LITE 153.44 153.485 153.575 153.725 154.465 451.125
CRNTRL ILL PUB SVC 47.94 48.14 48.24 451.15 451.575 451.675 456.275
CHICAGO MUNI 158.25 453.675 453.725 453.825 453.975
PORT 156.5Ø 156.6Ø
CITIES SVC OIL 152.99 154.515 461.375
CITIZENS UTIL 451.125 469.15
CLARK OIL & REFIN 158.37
CLINTON CNTY REC 158.25
COLES-MOULTRIE EC 47.78 47.84
COMMONFIELDS OF CAHOKIA 153.68
COMMONWLTH EDISON 37.6Ø 152.48 153.455 153.53 153.545 153.575 153.59 153.595 153.6Ø5 153.62 153.635 153.68 153.695 153.71 158.13 451.Ø5 451.425 451.575 451.625 (NUCLEAR PWR FACILITY LASALLE CNTY #1 AT SENECA ON ABOVE FREQS. NUCLEAR PWR FACILITIES DRESDEN 1-2-3 AT MORRIS ON 153.6Ø5 158.13 451.Ø5 451.1Ø 451.25 451.25 NUCLEAR PWR FACILITIES QUAD CITIES 1-2 AT CORDOVA ON 37.6Ø 153.6Ø5 158.13 158.2Ø5 NUCLEAR PWR FACILITY AT ZION ON 158.13 451.375 451.425)
CONOCO 153.275 156.9Ø
CONSOLID CABLE UTIL 461.875
CONTINENTL ELEC CONSTR 154.54
CONSUMERS GAS 153.59
CORN BELT EC 153.47 158.25
CORRECT MAINT CORP 459.ØØ
COWAN ELEC LINE CONTR 463.55
CSGDDRLM OIL 153.215
DAIRYLAND PWR COOP 37.52 37.62
DAVIS WELL SVC 151.535 153.38
DECATUR MUNI 153.71
DEPT OF ENERGY 4Ø.47 154.68 158.79 164.225 164.3Ø 164.325 164.375 167.825 167.925 167.975 168.45 171.2Ø 171.95
E ILL GAS 153.68
E ILL POWER 153.41
EDGAR EC 47.78
EGYPTIAN EC 47.78
EIDMAN OIL 43.28
ELECTR ENERGY INC 153.46 153.53 166.275
EVANSTON MUNI 48.22
ENVIROENGINEERING 151.625
ENVIRONM CONDITIONING CORP 472.9875
EXPLORER PIPE LINE 49.24
EXXON 451.375
FARMERS MUTUAL EC 47.76
FEAR & DUNCAN OIL 153.425
FERMI NAT'L ACCELLERATOR LAB 154.1Ø 164.275 164.3Ø 164.325 164.35 167.925 168.45 169.6Ø 4Ø8.6Ø 41Ø.8Ø (EMERG 155.22 & 155.34)
FS SERVICES 456.55 852.3625 852.3875 852.4125 852.4375 852.4625
GAS UTILITIES 153.44
GEN ELECTRIC 151.865 153.Ø8 153.11 153.155 153.2Ø 153.23 461.725
GENESEO MUNI 158.25
GETTY REFINING 35.Ø8 35.74 47.56 152.96
GRAHAM HERMAN OIL 33.36
GULF OIL 33.38 49.1Ø
H&H OIL 153.26
HALLIBURTON RESOURCE MGT 47.44
HARRIS DRILLING 3Ø.78
HOMEWOOD MUNI 48.24
HUMBLE OIL 451.65
HYDROCARBON TRNSPTN 49.32
ILLINI ENVIRONM SYS 461.975
ILLINOIS BUILDING 48.14
ILLINOIS EC 173.3Ø
ILLINOIS GAS 153.68
ILL PWR CO 153.56 153.65 156.725 451.Ø5 451.125
ILLINOIS REC 47.78 451.2Ø
ILL STATE WATER SURVEY 31.86
ILLINOIS VLY EC 47.78
INSTIT GAS TECHNOL 153.2Ø 153.32
INTERSTATE PWR CO 37.5Ø
IA ILL GAS/ELEC 48.18 48.26 173.3Ø
JACKSON MUNI 158.175
JO-CARROLL EC 37.62
JOLIET MUNI 48.38
JONES DRILLING 153.2Ø
JUPITER PETROL 49.2Ø
KENEIPP OIL 153.335
KNOXVILLE MUNI 48.42 456.Ø5 456.15 456.25
LAKE RIVER TERMINALS 154.57
LOEB & MITCHELL OIL 153.23
LOEFFLER OIL 153.3Ø5
M&E DRILLING 33.18
M&S OIL WELL CEMENTNG 49.56
MARATHON OIL 157.68 467.85
MARATHON PIPE LINE 48.58 48.6Ø 158.31 158.37 451.6Ø
MARTIN OIL 153.335
MCDONOUGH PWR COOP 47.78
MENARD EC 47.78 153.425
MI-WISC PIPE LINE 48.9Ø
MIDWEST GAS TRNSMSN 48.68
MISS RVR TRNSMSN 48.82
MJM EC 47.82
MOBIL OIL 47.52 153.11 153.395 154.57 158.31 451.175 451.55 451.6Ø 451.65 451.7Ø 461.125
MODERN EXPLORATION 153.365
MONARCH GAS 451.1Ø
MONROE CNTY EC 158.25
NALCO ENVIRONM SCI 469.55
NAPLES TERMINAL 152.99
NATRL GAS PIPE LINE 33.3Ø 48.62 173.395
NORRIS EC 47.78
N SHORE GAS 153.65 153.85
N ILL GAS 46.ØØ 47.96 47.98 48.ØØ 48.12 49.ØØ 451.Ø75 451.1Ø 451.2Ø 451.225 451.275 451.375 451.75
OH&F INC 33.34
OAK BROOK UTIL 173.3Ø

OIL FIELD DRILL & SERV 157.68
OIL FIELD ELEC 47.52 452.5Ø 461.8Ø
OIL STORAG CO OF CHI 461.275
OIL WELL CEMENT INC 49.56
OIL WELL REPAIR 152.99
OLSEN DRILLING 463.925
PANHANDLE EAST PIPEL 48.7Ø
PEOPLES GAS/LITE/COKE 153.41 153.47 153.515 153.65 451.Ø25 451.125
PETRO DRILLING 48.72
PHILLIPS PETROL 49.56 158.235 464.625
PHILLIPS PIPE LINE 33.38
PIPE LINE SVC 48.82
PLATTE PIPE LINE 158.43
PODOLSKY OIL 153.155
PRECISION EXPLOR 153.245
PRECISION WELL PERF 33.28 48.92
QUINCY MUNI 153.41
RAM OIL 462.525 463.525
RANTOUL MUNI 153.62
REBSTOCK OIL 153.2Ø
ROYAL DRILLING 158.43
ROYSE DRILLING 153.3Ø5
RURAL ELEC CONVEN 47.78 47.95
SABER OPERATING 158.43
SERVICE PIPE LINE 49.14
SHELL OIL 48.56 48.64 15Ø.98 153.35 156.5Ø 156.6Ø 157.74 451.6Ø 451.775
SHERRARD PWR SYST 153.5Ø
SIMPKINS OIL 33.24
SINCLAIR PIPE LINE 153.17
SNYDER DRILLING 33.22
SOHIO PETROL 154.49
SOHIO PIPE LINE 153.29
S E ILL EC 37.78 48.Ø6
S ILL EC 158.235
S ILL PWR COOP 47.78 153.485
S W EC 153.5Ø
SPARTAN PETROL 49.ØØ
SPRINGFLD MUNI 153.665 158.19
STANDARD OIL OF IN 151.655 151.745 151.835 152.42 154.625 451.475 451.75 454.ØØ 459.ØØ 461.Ø25
STAR JET OIL WELL SVC 43.52
STEWART PRODUCERS 33.2Ø 48.88 157.47
SUN OIL 48.58 151.535 151.685 153.26
SUPERIOR OIL 153.Ø8
TELEVEST EXPLOR 48.62
TEXACO 49.3Ø 158.43 451.175
TEXACO-CIT SVC PIPEL 462.475
TEXAS EASTERN 48.94
TEXAS TERMINALS 464.25
TOWN GAS 48.5Ø
TRI CNTY EC 158.145
TRIANGLE OIL 33.3Ø
TRUNKLINE GAS 49.Ø2
TROOP DRILLING 153.17
TENN VLY AUTH 412.775
UNION ELEC 48.28 48.38
UNION OIL 48.96 153.Ø85 158.37 451.525 451.55 451.6Ø 451.65 451.675 451.7Ø 463.225
UNION TANK CAR CO 154.57
WAYNE WHITE CNTYS EC 158.25
WEAL DRILLING 153.Ø5
W ILL ELEC 47.78
W ILL PWR COOP 47.78 47.9Ø
WESTINGHOUSE 457.525 457.55 457.575 457.6Ø
WOLVERINE PIPE LINE 48.78

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ALLEN WELLS CNTY REMC 47.9Ø
AMER ELEC PWR SVC 462.7Ø
AMOCO 48.66 151.685 151.715 151.8Ø5 151.835 151.895 152.9Ø 152.93 153.Ø2 153.23 158.37 451.175 451.475 451.525 451.55 451.6Ø 451.9Ø 457.525 461.2875
ANDERSON MUNI 153.59
ARCO OIL 153.17 451.65 451.675 451.75 452.ØØ
ARCO PIPE LINE 48.84
AUBURN MUNI 158.265
AURORA MUNI 153.455 153.68
BABCOCK & WILCOX 153.11 462.1125
BARTHOLOMEW CNTY RMC 173.3Ø
BATESVILLE MUNI 151.775
BIGHEART PIPE LINE 48.78
BOONE CNTY REC 47.9Ø 451.575
BOONVILLE NATRL GAS 153.6Ø5
BUCKEYE PIPE LINE 33.22
CANNELTON MUNI 173.25
CARROLL CNTY REC 47.9Ø 48.1Ø
CENTERVILLE MUNI 153.41
CENTRL IN GAS 47.7Ø 47.82 153.53 153.68
CF PETROL 153.17
CITIES SVC 43.18 4744 151.865 158.31 461.375
CITIZENS GAS/COKE 153.41 153.47 154.57 451.1Ø
CLARK CNTY REC 158.25
COMBUSTION ENGINRNG 31.ØØ 154.57
COMMONWLTH EDISON 158.13
CORRECT MAINT 454.ØØ
CRAWFORDSVL ELEC 153.71
DAVIESS MARTIN CNTY 37.54
DECATIR CNTY REMC 47.9Ø
DISTRIBUTORS TERMNL 151.685
DUBOIS REC 47.72
ENERGY COOP 153.71 451.65 451.75
ENERGY RESOURCE CORP 151.49
EXPLORER PIPE LINE 49.24
FARM BUREAU OIL 3Ø.7Ø
FAYETTE UNION CNTY REMC 47.9Ø 48.1Ø
FT WAYNE MUNI 158.19
FOUNTAINTOWN GAS 153.575
FRANKFORT MUNI 153.53
FULTON CNTY REC 47.9Ø 48.1Ø
GEN ELECTRIC 151.655 151.775 151.925 153.14 153.17 154.515 154.6Ø 157.74 158.31 461.45 461.5Ø 462.35 464.1Ø
GEN'L OIL FLD SUPPLY 47.64
GETTY REFINING 35.74 152.93 451.825
GREENDALE MUNI 153.41
GULF OIL 49.1Ø
GWALTNEY DRILLING 33.34
HANCOCK CNTY REMC 158.13
HENDRICKS CNTY PWR 158.13
HENRY CNTY REMC 158.25
HOOSIER GAS COOP 37.82
IN & MI ELEC CO 37.7Ø 37.74 37.8Ø 156.975 173.2Ø5 173.395 451.Ø5 451.175
IN GAS CO 47.62 48.26
IN NATRL GAS 48.Ø2
IN STATE NATRL RESOURCES 151.19 151.34 159.25 159.435
PORTS 156.425 156.5Ø 156.6Ø 156.85
IN STATEWIDE REC 48.16
INDPLS PORT 154.Ø55
INDPLS P&L 48.Ø6 48.3Ø 48.5Ø 153.62 154.465 451.125 451.15 451.375
J&N OIL 49.24
JACKSON CNTY REC 37.54
JASPER CNTY REC 158.19
JAY CNTY REC 47.9Ø 48.1Ø
JOHNSON CNTY REC 158.19
KANKAKEE VLY REC 47.9Ø 48.1Ø
KNOX CNTY REC 37.64
KOKOMO GAS/FUEL 173.35
KOSCIUSKO CNTY REC 47.9Ø 48.1Ø
K-S OIL 153.725
LAGRANGE CNTY REC 47.9Ø 48.1Ø
LAWRENCE GAS 47.74
LO&A EC 37.54
LOGANSPORT MUNI 158.25
MARATHON PIPE LINE 48.58
MARSHALL CNTY REMC 47.9Ø 48.1Ø
MCCRARY OIL 153.Ø5
MIAMI CASS CNTY REMC 47.9Ø 48.1Ø
MI-WI PIPE LINE 48.9Ø 49.18
MID VLY PIPE LINE 158.43
MIDWEST NATRL GAS 33.54
MIDWESTERN GAS TRNSMN 48.68
MISHAWAKA MUNI 153.65 153.85
MOBIL OIL 151.49 153.11 461.6Ø 461.65
MORGAN CNTY REMC 47.9Ø 48.1Ø
NEWTON CNTY REMC 47.9Ø 48.ØØ
NOBLE CNTY REMC 47.9Ø
N IN DOCK 154.57 466.9Ø
N IN ENERGY MGT 151.8Ø5
N IN FUEL/LITE 153.68
N IN PUB SVC 37.52 37.56 37.58 37.66 37.78 153.665 158.16 158.2Ø5 158.2Ø5 158.265 451.1Ø
OHIO VLY EC 37.7Ø
OHIO VLY GAS 48.2Ø
ORANGE CNTY REMC 37.54
PANHANDLE ESTN PIPLN 48.7Ø
PARKE CNTY REMC 37.54
PERU MUNI 153.5Ø
PETROLEUM BROKERS 451.925
PHILLIPS PETROL 47.52
PHILLIPS PIPE LINE 33.38
PIPE LINE SVC CO 48.82
POLLUTION CNTRL SYST 464.4Ø
PUB SVC CO OF IN 48.Ø4 48.46 48.54 451.Ø25 451.15 451.2Ø 451.25 462.55 462.65 462.75
PURITAN UTIL 153.575
RICHMOND GAS 37.68
RICHMOND P&L 451.Ø25
ROBINSON ENGNRNG 49.12
ROCK ISL REFINING 158.43
RUSH CNTY REC 47.9Ø 48.1Ø
RUSHVILLE MUNI 48.14
SERVICE PIPE LINE 49.14
SHEETS OIL/GAS 49.58
SHELBY CNTY REMC 158.19
SHELL OIL 48.64
SOHIO PETROL 152.36 152.99
SOHIO PIPE LINE 153.29
S IN G&E 153.56 153.665 158.13 158.22
S E IN REC 37.54
S LAWRENCE UTIL 153.485
STEUBEN CNTY REC 47.9Ø
SULLIVAN CNTY REC 37.54
SUN EXPLORATION 3Ø.66
SUN OIL 151.565 151.655
TELL CITY MUNI 173.3Ø
TERRE HAUTE GAS 158.16
TEXACO 156.35 156.9Ø
TEXACO-CITIES SVC PIPE LINE 462.475
TEXAS EASTERN 48.94
TEXAS GAS TRNSMSN 48.9Ø
THORNTOWN UTIL 173.25
TIPMONT REMC 47.9Ø 48.1Ø 158.2Ø5
TIPTON MUNI 153.65
TRUNKLINE GAS 48.9Ø 49.Ø2
TT TRILLING 48.7Ø
UNION OIL OF CA 151.655
UNION TANK CAR CO 154.49
UNITED REMC 47.9Ø 48.1Ø
UTIL DIST OF W IND 47.9Ø
WABASH CNTY REMC 47.9Ø
WABASH PIPE LINE 48.58
WARREN CNTY REMC 47.9Ø 48.1Ø
WASHINGTON MUNI 158.8Ø5
WAYNE CNTY REC 47.9Ø 48.1Ø
WESTINGHOUSE 153.35
WHITE CNTY REMC 47.9Ø 48.1Ø
WHITLEY CNTY REMC 47.9Ø
YANKEETOWN DOCK 152.87

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ADAMS CNTY EC 47.72 48.48
ALGONA MUNI 153.68
ALLAMAKEE CLAYTON EC 37.62
AMANA SOCIETY SVC 153.44
AMOCO OIL 48.65 151.685 154.54 456.275 461.Ø75
ARCO OIL 451.775
ARCO PIPELINE 153.17
ATLANTIC MUNI 153.47
BANCROFT MUNI 45.28
BASS OIL 48.9Ø
BENTON CNTY EC 47.72 47.82 48.48
BUCHANAN CNTY REC 47.72 48.48
BUENA VISTA CNTY REC 47.72 48.48
BURLINGTON MUNI 153.53
BUTLER CNTY REC 47.72 48.48
CALHOUN CNTY EC 47.72 48.ØØ
CEDAR FALLS MUNI 48.46
CEDAR RAPIDS 153.41
CEDAR VALLEY EC 37.62 451.275
CENTRL IA PWR COOP 48.48
CHARITON VLY EC 47.72 48.48
CHEROKEE CNTY REC 48.48 153.81
CLARKE EC 47.72 48.48
CORN BELT PWR 37.86 451.2Ø
CORNING MUNI 153.71
MIDWEST NATRL GAS 48.4Ø 48.72
DAIRYLAND PWR COOP 37.62
DEK REC 47.72 48.48
DUBUQUE OIL TERMNL 156.3Ø 156.35 156.5Ø 156.9Ø
E IOWA L&P 48.Ø6 451.825 456.25
FARMERS EC 47.72 48.48
FT DODGE MUNI 153.5Ø
ECOLOGY CONTRL CORP 151.715
GEN ELECTRIC 461.3Ø 463.325 463.6Ø
GETTY REFINING 35.12 35.76 35.82 47.52 152.945
GLIDDEN REC 47.72 48.48
GREEN CNTY REC 47.72 48.48
GRUNDY CNTY REC 47.72 48.48
GULF OIL 151.595 152.99
GUTHRIE CNTY REC 47.72 48.48
HANCOCK CNTY REC 47.72 48.48
HARDIN CNTY REC 47.72 48.48
HARRISON CNTY REC 47.72 48.48
HAWKEYE TRI-CNTY EC 37.62
HUMBOLDT CNTY REC 47.72 48.48
HYDROCARBON TRNSPTN 49.32
INTERSTATE POWER 37.46 37.5Ø 37.58
IA ASSN OF ELEC COOPS 451.475
IA ELEC L&P 37.54 48.3Ø 48.48 153.545 451.Ø75 451.125
IA-IL G&E 48.18 48.26 173.2Ø 173.35
IA P&L 37.78 37.82 153.56 158.175 158.22 451.Ø25 451.Ø5 451.Ø75 451.1Ø 451.125 451.15 467.75 467.8Ø 467.85 467.9Ø
(NUCLEAR PWR FACILITY ARNOLD 1 AT PALO USES 451.Ø75)
IA PUB SVC 47.9Ø 48.24 48.28 48.32 154.325 451.Ø75
IA SOUTHERN UTIL 158.13 158.22
IA STATE ENVIRONM PROT 31.14 31.18 155.595
KEOKUK GAS SVC 153.455
KIRBY OIL INDUSTR 158.295
LINN CNTY REC 47.72 48.48
LYON REC 153.71
MAPCO INC 49.36
MAQUOKETA VL REC 47.72 48.48 451.15 451.2Ø
MARSHALL CNTY REC 451.25 451.675
MI-WI PIPE LINE 48.9Ø
MIDWEST UTIL CONTRL 464.Ø75
MOBIL OIL 151.985 153.11
MONONA CNTY REC 47.72 48.48 158.25
MUSCATINE MUNI 153.53 153.635
N W ELEC PWR COOP 48.54
NATRL GAS PIPELINE 33.3Ø
NEW HAMPTON MUNI 153.62
NISHNABOTNA VLY REC 153.59
N CENTRL PUB SVC 153.665 158.19
N E MO EC 48.46
N ILL GAS 33.18 48.Ø4 153.695 173.25 451.Ø75 451.1Ø 462.525 467.525
N W IA PWR 153.53 158.19
NYMAN EC 47.72 48.48
O'BRIEN REC 47.72 48.48
OGDEN MUNI 158.145
OSCEOLA EC 153.71
PELLA MUNI 158.25
PEOPLES NATRL GAS 173.25

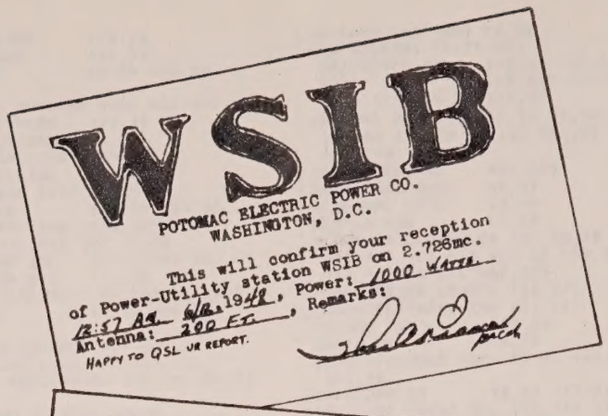
PETERSON OIL 152.885
PLYMOUTH EC 48.1Ø
POCAHONTAS EC 47.72 48.48
RIDETA EC 47.72 48.48
SAC CNTY REC 47.72 48.48
SHELL OIL 462.Ø5
SIOUX CITY MUNI 153.68
SIOUX EC 153.71
S CRAWFORD REC 48.48 48.72
S E IA EC 48.Ø8
SOUTHERN IA EC 451.625
SPENCER MUNI 153.47
SUN OIL 151.775
TIP REC 47.72 48.48
UNION OIL 156.45 158.37
W AREA PWR ADMIN 164.375
WILTON MUNI 153.725
WINNEBAGO REC 48.ØØ 451.425
WOODBURY CNTY REC 153.71

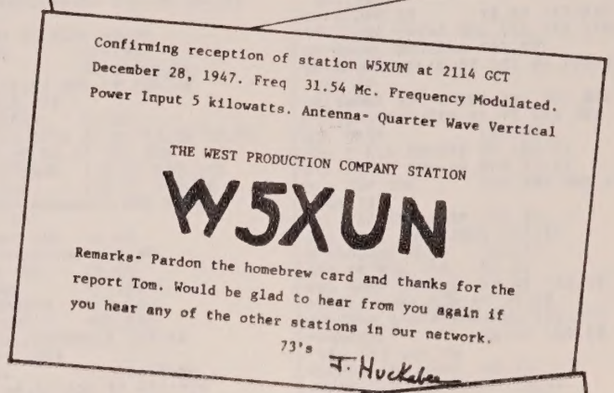
K A N S A S

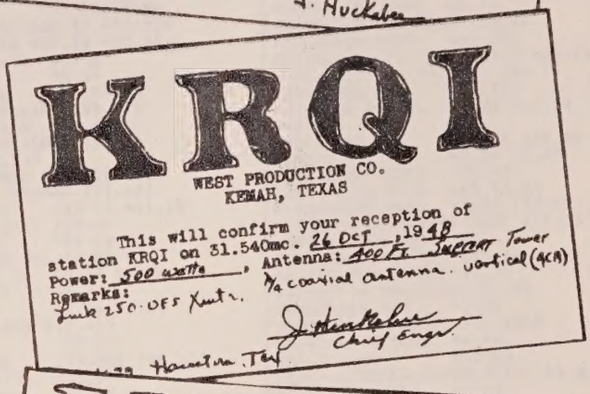
ALFALFA EC 153.485
AMOCO OIL 31.Ø4 151.585 461.Ø75
AMOCO PIPELINE 49.14
ANADARKO PROD CO 158.31
APCO OIL 153.Ø8 153.2Ø
ARAPAHOE PIPE LINE 153.11
ARCO 48.84 153.17 159.48
ARK-LA GAS 3Ø.82 153.47 153.5Ø
ARK VLY EC 47.84 451.2Ø
ATCHISON MUNI 153.68
AZTEC OIL 48.84 452.375
BERENTZ DRILLING 48.76
BIG HEART CRUDE OIL 154.625
BOWERS DRILLING 153.Ø8
BOYER OIL 48.62
BUTLER BROS 35.14 454.ØØ 459.ØØ
BUTLER REC 153.575
CANEY VLY EC 153.545 153.65
CARMAC OIL 153.Ø65
CEDAR BLUFFS MUNI 153.44
CENTRL KS EC 47.78 153.665 153.71
CENTRL TELE & UTIL 153.53
CITIES SVC OIL 48.72 49.ØØ 49.44 153.Ø8 153.29 451.55 451.65 452.Ø5
CMS EC 153.545
COFFEY CNTY REC 153.53 153.545
COFFEYVILLE GAS 159.48
COLO INTERSTATE CORP 48.82
COLT INC 451.425
COMBUSTION ENGINEERING 461.45
CONOCO 49.ØØ 49.34 49.48 451.75
CONSOLID OIL WELL SVC 451.85
CONTINENTAL PIPE LINE 49.ØØ
CORNISH OIL WELL SVC 461.975
CRA INC 33.34 158.415
CRAIG MORRIS OIL 451.425
CRR INC 153.26
DJ OIL 153.215
DONIPHAN EC 158.13
DS&O REC 153.545
DUNHAM DRILLING 48.92
EMPIRE DISTR ELEC 48.16 48.24 48.3Ø 48.36
ENERGY RESERVES GRP 49.28
EUREKA DRILLING 48.68
FLINT HILLS REC 153.41
GABBERT JONES 49.5Ø
GARY OIL 153.Ø8
GAS SVC CO 47.7Ø 47.82 47.92 47.94 48.3Ø 48.52
GENERAL ELECTRIC 461.65 464.ØØ 464.9Ø
GENES OILFIELD SVC 158.385
GEO HESS OIL 49.2Ø
GETTY OIL 49.26 153.275
GETTY REFINERIES 35.Ø2 35.12 35.8Ø 35.82 35.9Ø 42.98 43.ØØ 153.395 451.275 46Ø.9125 461.9125 463.462
GOODLAND MUNI 451.Ø75
GRAVES DRILLING 153.185
GREAT PLAINS EC 153.545 153.725
GREELEY GAS CO 47.78 153.47
GRESSEL OIL FIELD SVC 152.885
GULF OIL 49.1Ø 153.11 462.2Ø
HALLIBURTON RESOURCE MGT 43.Ø8 47.44
HAY DRILLING 48.82
HELMERICH & PAYNE 33.34
HERINGTON MUNI 153.65
HESS OIL 47.52
HISS OILFIELD CONTR 43.Ø8
HOFFMAN OIL 153.41
HOME OIL CO 122.8 151.8Ø5
HOUCK BROS DRILLING 452.Ø75
HUBBARD OIL 151.595
HYDROCARBON TRNSPTN 49.32 49.52 451.6Ø
JACKSON BROS 49.46
JAYHAWK PIPE LINE 153.215
JEWELL MITCHEL EC 158.25
KANS CITY MUNI 158.16 173.25 451.Ø25 451.2Ø
KANS CITY P&L 153.41 153.71 451.1Ø 451.375 451.625
KANS G&E 37.7Ø 37.82 153.455 153.515 153.6Ø5 153.635 158.19 467.75 467.8Ø 467.85 467.875 467.925
KANS-NEB NATRL GAS 37.5Ø
KANS P&L 37.56 37.58 37.62 37.68 48.12
KANS STATE FISH/GAME 39.58
KAW PIPE LINE 153.Ø5 153.14
KAW VLY EC 153.59
K E SNYDER CO 49.42
KILLOUGH CO 43.14
KINGMAN MUNI 153.41
KOCH INDUSTRIES 153.38 159.4Ø 457.Ø5
LANE SCOTT EC 153.59 451.1Ø
LAYTON OIL 33.3Ø
LEAVENWORTH MUNI 153.5Ø
LEAVENWRTH JEFF EC 158.13
LIBERAL GAS 153.65
LONG DRILLING 48.96
LYON CNTY EC 153.53
MANKATO MUNI 173.39
MAPCO INC 49.36
MC COY PETROL 153.Ø95
MC PHERSON MUNI 451.Ø5
MESA PETROL 158.37
MI-WISC PIPE LINE 48.9Ø
MID AMER PIPE LINE 49.36
MIDWEST UNDERGRND STRGE 456.6Ø
MILLER OIL 48.58
MOBIL OIL 3Ø.7Ø 49.1Ø 153.29 153.32 153.52 154.6Ø 451.65 466.5125 466.7125
MOBIL PIPE LINE 49.Ø6 154.47
NCK EC 158.13
NATN'L COOP REFINERY ASSN 153.25 153.275
NATRL GAS PIPE LINE 33.3Ø
NEMAHA MARSHALL EC 158.13
NINNESCAH EC 153.71
NORTHN GAS PRODCTN 173.2Ø
NORTHN NATRL GAS 33.18 47.9Ø 153.71 462.525
N W KANS EC 153.545 153.71 158.2Ø5
NORTON DECATUR CORP 153.485 153.71 451.1Ø
OAKLEY MUNI 155.82
OIL FIELD TRUCKING 43.96
OILWELL DRILLING 48.56
OKAN PIPE LINE 49.Ø6
OTTAWA MUNI 153.68
PAN AMER PETROL 48.6Ø 451.6Ø
PANHANDLE EASTRN PIPELN 48.7Ø 173.2Ø
PESTER REFINING 158.37
PETROLEUM INC 48.62
PHILLIPS PETROL/PIPELN 33.38 153.23 158.31
PICKRELL DRILLING 48.94
PIONEER EC 153.545 153.71 451.Ø5
PLAINVILLE OIL WELL SVC 152.96
PLATTE PIPE LINE 158.43
PR&W EC 153.545 153.575
PRARIE OILFIELD SVC 33.26
PRATT OIL OPERATORS 48.66
PRODUCERS GAS 37.82
PRODUCERS PIPE LINE 48.98
RADIANT OIL 158.13
REVELL OIL FIELD CONST 49.56
RURAL GAS SYST 158.16
SEDGWICK CNTY EC 153.545 153.71
SEKAN EC 48.18
SERVICE PIPE LINE 49.14
SINCLAIR PIPE LINE 153.17 158.22
SKELLY OIL 151.865 153.2Ø
SMOKEY VLY EC 48.26 153.47 153.545
SOULE OIL 153.395
S E PUBL SVC 42.98
S W PUBL SVC 37.5Ø 37.58 451.1Ø
STEKOLL PETROL 33.18
STERLING DRILLING 48.86
STICKLE DRILLING 451.55
SUMNER-COWLEY EC 153.545
SUNFLOWER EC 158.19 158.235
SUN OIL 33.28 35.94
SUN OILWELL CEMENTING 49.56
SWEETMAN OIL 153.365
TERRA RESOURCES 33.22
TESORO PETROL 153.Ø8
TEXACO OIL/GAS 49.3Ø 49.36 49.42
TEXACO-CIT SVC PIPE LINE 462.475
TRI CITY GAS 153.68
TULSA CRUDE OIL PURCH 43.94
TWIN VLY EC 153.5Ø 153.545
UNION GAS SYST 37.5Ø
UNIT DRILLING 48.66
UNITED EC 153.545
UTILITY CONSULTNTS 48.22
UTILITY CONTRACTORS 42.9Ø 43.1Ø
VICTORY EC 158.13
WESCO PIPE LINE 158.31
WESTERN EC 153.545 153.71
WESTINGHOUSE 151.955 153.17
WHEATLAND EC 158.13 158.235
WHITE & ELLIS DRILLING 48.86
WICHITA MUNI 158.25
WIEDEMANN TRUST 153.Ø5
WINFIELD MUNI 48.54

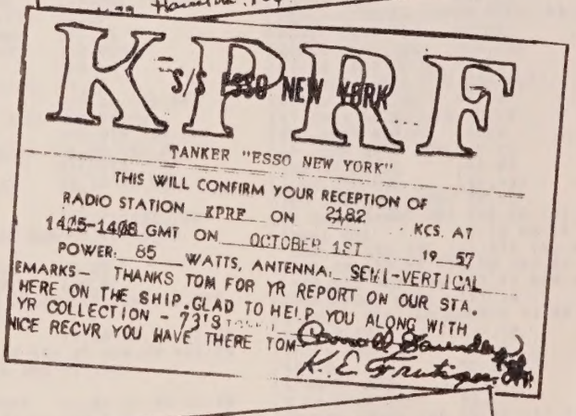
K E N T U C K Y

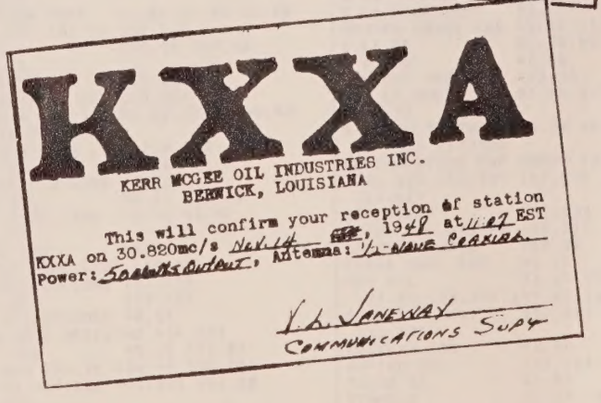
AMOCO 43.Ø2 153.23
ASHLAND OIL/REFINING 43.Ø8
BENTON MUNI 153.5Ø
BIG RIVERS EC 47.88 173.2Ø
BIG SANDY EC 47.9Ø 48.24
BILLY GOUCH CO 153.365




Confirming reception of station W5XUN at 2114 GCT
December 28, 1947. Freq 31.54 Mc. Frequency Modulated.
Power Input 5 kilowatts. Antenna- Quarter Wave Vertical
THE WEST PRODUCTION COMPANY STATION
W5XUN
Remarks- Pardon the homebrew card and thanks for the report Tom. Would be glad to hear from you again if you hear any of the other stations in our network.
73's


KRQI
WEST PRODUCTION CO.
KEMAH, TEXAS
This will confirm your reception of station KRQI on 31.540mc. 26 Oct, 1948
Power: 500 watts, Antenna: 400 Ft Sargent Tower
Remarks:
Sunk 250 OFS Xmtr.
3/4 coaxial antenna. vertical (4CA)


KPRF
S/S ESSO NEW YORK
TANKER "ESSO NEW YORK"
THIS WILL CONFIRM YOUR RECEPTION OF
RADIO STATION KPRF ON 21.82
1415-1408 GMT ON OCTOBER 1ST 19 57
POWER: 85 WATTS, ANTENNA: SEMI-VERTICAL
REMARKS- THANKS TOM FOR YR REPORT ON OUR STA.
HERE ON THE SHIP. GLAD TO HELP YOU ALONG WITH
YR COLLECTION - 73'S
NICE RECVR YOU HAVE THERE TOM


KXXA
KERR MCGEE OIL INDUSTRIES INC.
BERWICK, LOUISIANA
This will confirm your reception of station
KXXA on 30.820mc/s Nov 14, 1948 at 1107 EST
Power: 500 Watts Output, Antenna: 1/4 WAVE GROUND
COMMUNICATIONS SUPT

BLUE GRASS EC 158.13
BOWLNG GREEN MUNI 153.41 153.53
CAMPBELL CNTY UTIL 158.19
CARMON OIL 153.125
CARROLLTON MUNI 47.76
CHEVRON OIL 151.955 154.6Ø 158.37 451.75
CINCINNATI OH G&E 48.34
CITIES SVC OIL 33.36
CLARK OIL PROD 48.7Ø
CLARK REC 158.16
COLLINS PETROL 33.82
COLUMBIA GAS SYST 153.62
COLUMBIA GAS TRNSM 33.38 451.6Ø
COMMONWLTH SVC 47.74
CONOCO 153.125
CONSUMERS NATRL GAS 48.ØØ
CORBIN OIL 153.425
CREEK OIL 3Ø.66
CUMBERLND VLY REC 37.8Ø
DELTA NATRL GAS 37.86
E KY PWR COOP 37.62 156.35 456.Ø25
ENERGY RESOURCES CORP 151.49
EVANS & DIXON 48.68 49.Ø4
EXXON 158.355
FARMERS REC 37.62
565 CORP 47.44 48.86 49.Ø6 151.655 153.Ø65 153.335 451.425 451.475 451.525 451.65 463.975 464.5Ø 464.55
FLEMING MASON REC 37.62
FOX CREEK REC 153.71 158.235
FRANKLIN MUNI 153.62
FULTON ELEC SYST 48.42
GENERAL ELECTRIC 3Ø.84 31.16 33.14 151.865 151.925 153.14 153.17 153.29 154.57 158.28 461.35 462.425 463.775
GRAYSON REC 37.62
GRAYSON UTIL COMM 153.455
GREEN RIVER EC 37.62
GREEN RIVER GAS 48.62
GREEN RIVER REC 37.62
GULF OIL 153.17
HANCOCK CNTY GAS 43.48
HAR-KEN OIL 33.32 452.8Ø
HARRISON CNTY REC 37.5Ø 153.44
HENDERSON UNION ELEC 37.86
HENRY CNTY UTIL 153.455
HICKMAN-FULTON CNTYS REC 37.62
HOLLY CRK GAS TRNSMSN 48.88
HOLLY CRK PRODUCTN 48.56
HOME OIL TERMNL 156.9Ø 467.75
HOPKINSVL ELEC 158.19 158.22
HOPKINSVL MUNI 158.16
HUMBLE OIL 154.47 451.65
INLAND GAS 48.78
INTER CNTY REC 47.94
JACKSON CNTY REC 37.62
JACKSON PURCH REC 47.9Ø 48.52
JONES OIL 3Ø.74
KENTON CNTY UTIL 451.1Ø
KY POWER CO 37.7Ø 37.74 153.59 154.57 466.575
KY STATE ENVIRONM PROTECTION 44.68 44.76 44.8Ø
KY UTIL CO 48.3Ø 153.56
KY-WV GAS 48.74
LICKING VLY REC 47.9Ø
LOU!SVL G&E 37.7Ø 37.76 48.ØØ 154.57 154.6Ø 451.Ø5 451.125 451.225 451.425
LOUISVL RIVR TERMNL 156.9Ø
MAYFIELD ELEC 153.6Ø5
MAYSVILLE UTIL 153.68
MEADE CNTY REC 153.65
MI-WI PIPE LINE 49.18
MID VLY PIPE LINE 158.43
MIDWESTERN GAS TRNSMSN 157.56
MOLIN REC 153.68
MOSS DRILLING 48.7Ø
MONTICELLO MUNI 153.62
MOREHEAD MUNI 48.14
MURRAY MUNI 153.56
NEWPORT MUNI 153.485
NOLIN REC 158.22
NRG DRILLING 48.82
OIL FIELD CONTR 49.58
OWEN CNTY REC 37.62
OWENSBORO
MUNI 153.41
PORT 156.7Ø
OWENSBORO-ASHLND CO 48.86
PADUCAH MUNI 158.265
PAN-BOWL GAS 48.6Ø
PENNYRILE REC 47.96
PEOPLES GAS OF KY 48.12
PIKEVILLE MUNI 47.68
RIVER TERMINAL INC 467.75
SALT RIVER REC 37.62
SHELBY REC 37.66 153.425 158.265
SHELL 48.56
SOUTHEASTERN PWR ADMIN 44.62 155.37 164.225 164.25 164.375 164.75 166.275 167.825 167.925 17Ø.Ø25 4Ø7.Ø5
S E UTIL INC 43.1Ø
S KY PURCHASING 153.245 158.325
S KY REC 37.64
SUN OIL 158.31
TENNECO 451.55
TENN VLY AUTH 38.98 4Ø.5Ø 4Ø.62 4Ø.74 163.125 163.15 166.325 166.375 166.655 17Ø.Ø5 171.7Ø 172.4Ø 172.75 4Ø6.175 412.775
TERRA RESOURCES 48.62
TEXAS EASTERN 48.94
TEXAS GAS TRNSMSN 48.9Ø 451.7Ø
TRI CNTY ELEC 46.14
UNITED DRILL/EXPLOR 48.96
UNITED FUEL GAS 451.6Ø
VIKING PETROL 47.6Ø
WARREN REC 158.19
WEAL DRILLING 158.31
W KY GAS 48.22
W KY REC 48.12

L O U I S I A N A

A&A DRILLING 153.665
ADMYR INC 48.84
ALEXANDRIA MUNI 158.25
ALEXANDRIA P&L 153.695
AMERADA HESS 49.3Ø 154.6Ø
AMER WASTE/POLLUTION 463.875
AMINOIL USA 49.5Ø
AMOCO PRODUCTION 31.96 35.94 48.76 48.6Ø 153.23 153.335
ANDREW MARTIN INDUSTR 153.Ø95
APEX OIL 156.5Ø 156.675
ARCO OIL 48.6Ø 451.225
ARK-LA GAS 3Ø.82 153.41 153.47 451.Ø75 452.Ø5
ATLAS PROCESSING 451.35
ASSOC ENERGY TRNSPT 156.9Ø
AWI INC 48.76 456.65
BARNWELL DRILLING 49.16
BAXTER DRILLING 48.8Ø
BAY DRILLING 158.325 158.43
BAYOU STATE OIL 48.56
BEACON GASOLINE 48.88
BEEBE DRILLING 33.2Ø
BEL OIL 153.Ø8
BERWICK BAY OIL 152.96 156.9Ø
BIBBY OIL PROD 49.ØØ
BODCAW CO 49.12
BOGAWSA TUNG OIL 154.49
BOOKER DRILLING 48.74
BOSSIER REMC 47.76 47.88
BOUDREAUX OIL 451.925
BREAUX OIL 151.595 451.925 463.475
BRIGGS DRILLING 48.8Ø
BROWN & ROOT 3Ø.58 43.12 47.56 156.9Ø 451.85
BURMAH COMMUNIC 49.3Ø
BUTLER JOHNSON 173.3Ø
C&K PETROL 158.295
CADDO WELL SVCS 33.32
CAJUN REC 153.59 153.635 467.75
CALUMET REFINING 158.415
CENTRAL LA ELEC 37.5Ø 47.98 48.Ø4 48.4Ø
CHAPMAN DRILLING 158.37
CHEVRON OIL 3Ø.78 33.18 49.36 122.725 122.8 122.85 123.Ø5 153.11 154.57 156.5Ø 451.75 457.7725 457.7875 46Ø.55 46Ø.8625 463.5Ø 463.75 463.8625 465.55 465.6Ø
CHILES DRILLING 157.Ø25
CIRCLE BAR DRILLING 153.3Ø5
CIT CON OIL 158.37
CITIES SVC OIL 48.6Ø 49.16 153.Ø5 153.14 158.28 158.37 461.325
CITIES SVC PIPE LINE 33.18
CLAIBORNE EC 47.88 48.26
CLAIBORNE GASOLINE 49.2Ø
CLARK OIL PRODUCING 153.275 452.4Ø
CLEAN ATLANTIC ASSOC 15Ø.98 154.585 158.445 159.48
CNG PRODUCTION CO 153.635
COLONIAL PIPE LINE 49.4Ø
COLUMBIA GAS DEVEL 156.95
COLUMBIA GULF TRANSMSN 48.72 453.875 49Ø.975
CONCORDIA EC 47.78
CONOCO OIL 33.2Ø 33.38 154.47 156.6Ø 156.9Ø 158.31 451.225 451.525 451.625 451.675 453.975 461.25 462.5Ø
CREWBOATS INC 157.Ø25
CROSS DEVELOPM 153.515
CROW DRILLING 48.66
CRYSTAL OIL 153.575
D&D DRILLING 48.84
DELTA DRILLING 48.84
DELTA SOUTH OIL/GAS 49.54
DENHAM SPGS GAS 48.18
DIAMOND M DRILLING 33.32 452.275
DIXIE EMC 47.88 48.1Ø
DIXIE PIPE LINE 48.76 49.44
DIXILYN CORP 33.3Ø
DOW CHEMICALS 43.18 151.565 153.14 153.185 154.57 154.6Ø 157.74
DREW CORNELL 33.32
ECOL LTD 464.125
ENERCO 153.455
ENTEX INC 47.94
ENVIRONM PROT AGCY 156.45 156.8Ø 156.95
ENVIRONMENTAL SVCS 464.6Ø
ETHYL CORP 462.35
EVANGELINE REFINING 3Ø.96
EXCHANGE OIL/GAS 151.745 451.425
EXXON OIL 33.36 48.86 122.75 153.Ø5 154.47 154.625 156.45 156.9Ø 158.265 158.31 158.37 451.375 451.75 452.775 457.3Ø 462.Ø5 462.2Ø 462.275 462.4Ø 462.425 462.5Ø 49Ø.Ø75
EXXON PIPE LINE 49.1Ø
FALCO INC 49.16
F&F DRILLING 153.29
FARMERS GAS 152.93
565 CORP 48.64 158.22 462.2Ø
FTETTRICH ENVIRNM SVCS 461.725
FLA GAS EXPLOR 173.35
FLA GAS TRANSMSN 49.2Ø
FLOWER DRILLING 153.3Ø5
FLUOR DRILLING 49.32
FLUOR OCEAN SVCS 158.46
FOREST OIL 153.29 153.56
FOWLER DRILLING 153.3Ø5
GARRETT OIL FLD SVC 43.48
GAS & CHEM INC 35.18 464.25
GENRL AMER OIL 153.Ø6
GENERAL ELECTRIC 151.685 151.8Ø5
GETTY OIL 48.98 156.45 156.5Ø
CLASSCOCK-CHAPMAN 173.25
GOLDRUS DRILLING 462.525
GOODHOPE REFINERIES 153.56 156.35 156.6Ø
GREAT STHN OIL/GAS 49.46
GULF CREWS 153.Ø2
GULF OIL 33.24 49.Ø2 153.Ø8 153.35 156.5Ø 451.7Ø 49Ø.15 49Ø.175
GULF OVERSEAS 43.48
GULF STATES UTIL 37.84 47.9Ø 48.32 48.44 48.5Ø 48.52 451.Ø25
GUZZETTA OFFSHR 156.35 156.675
GUZZETTA OIL 156.35 156.7Ø
HALLIBURTON RESOURCE MGT 43.Ø2 43.Ø8 47.44
HASSIE HUNT INC 49.28
HERCULES DRILLING 152.96
HIGH SEAS INC 33.22
HILL PETROL 156.5Ø
HODGES INDUSTR 153.2Ø
HOOKER CHEM 462.225
HOUSTON OIL/MINERALS 156.5Ø 156.95 451.475
HUMBLE OIL 33.36 48.86 154.57 158.31 158.37 451.375 452.2Ø 457.2Ø 457.3Ø 462.2Ø
HUMBLE PIPELINE 49.1Ø
HUNT PETROL 49.14
HURLEY PETROL 153.215
HUTHNANCE DRILLING 156.975
IMC EXPLORATION 153.5Ø
INDUSTRIAL HELICOPT 123.Ø5 123.Ø75 151.955
INTERSTATE PROD SVC 158.235
INTRACOASTAL TERMNL 151.955
JEFF DAVIS EC 153,71 451,15
JEFF PARISH UTIL 153.47
JET DRILLING 461.3Ø
JUSTISS MEARS OIL 48,66
JW OPERATING CO 3Ø.78 33,24
KAY LEASE SVC 49,Ø8
KERR MCGEE 3Ø.66 33.28 153.5Ø 158.235 462.475
KEYDRIL CO 156.45
KING DRILLING 153,Ø95 158.175
KOCH INDUSTRIES 49.36
LAFAYETTE MUNI 153.53
LAKE CHAS PORT 158.8Ø5
LARRY OIL 158.43
LATEX GULF DRILL 43,32
LEBLANC OIL 156,35 156.5Ø
LIBERTY OIL WELL SVC 43,44
LL&L OIL 156,925 156.975
LOFFLAND BROS 49.24 452.Ø5
LOOP INC 451.525
LA GAS PURCH 48,7Ø 49,42 451,6Ø
LA GAS SVC 153,71 153,725
LA INTRASTATE GAS 47,98 48,54 48.68
LAND & EXPLOR 49,3Ø
LA-NEV TRANSIT 158,31
LA OFFSHORE TELEPH 151,34 151.685 151,985
LA P&L 37,5Ø 37,54 37,64 37.68 451,1Ø 451.25 456,2Ø 462.75
LA RESOURCES ING 451,425
LA STATE
ENVIRONM PROT 31.Ø6 31.38 31.5Ø 151.325 151.37 151.445
PORTS 156.45 156.5Ø 156.85
UTILITIES 173.21
MALLARD WELL SVC 158.265
MARATHON OIL 49.3Ø 48.98 49.42 452.85 49Ø.25
MARATHON PIPE LINE 158.235
MAYO INC 49.ØØ
MC DOWELL & COOK 3Ø.7Ø
MECOM OIL 3Ø.74 153.75
MI-WI PIPE LINE 49.18 49.22 451.375
MID LA GAS 48.58
MID VLY PIPE LINE 158.43
MISSION DRILLING 153.635
MISS GAS 153.425
MISS RIV TRNSMSN 48.82
MIXON BROS DRILLING 456,225
MOBIL OIL 49.18 123.Ø5 153,Ø95 153.44 154.47 156.725 156.9Ø 158,355 451,675 453.8Ø 456.625
MOBIL PIPE LINE 152.33 153.5Ø
MONROE MUNI 37.82
MONTEREY PIPE LINE 48.58 457.5Ø
MORAN OIL 48.72
MOVABLE OFFSHORE 33.24
MT AIRY REFINERY 153.215
MURPHY OIL 451.175
NATRL GAS PIPE LINE 33.3Ø
NAVARRO GAS PROD 48,68
NEW ORLEANS (CITY OF)
SEA/WATER BRD 153.41 153.63
PORT 15Ø.995 156.45 156.575 156.7Ø 156.9Ø
NEW ORL PUB SVC 37,5Ø 44,5Ø 48,18 153.53 153.59 158.19 451.Ø5 451.125 451,15
NOLA TERMINAL 467.875
NORCO GAS/GUEL 48.22
N CENTRL UTIL 43.4Ø
N E LA PWR 47.86
OCEAN DRILL/EXPLOR INC 3Ø.7Ø 156.975 451.575 453.3Ø 453.375 458.3Ø 458.375 46Ø.525
OCEANEERING CONSTR 156,975
OCEAN SCIENCES INC 151.625
OCEANS INT'L 468.85
ODECO UK 3Ø.7Ø
ODOM OFFSHORE SURV 35.Ø4 467.85 467.9Ø
OFFSHORE CO 3Ø.82 157.Ø25
OFFSHORE CREWS INC 156.725 156.975
OFFSHORE GENERAL 157.Ø25
OFFSHORE HELICOPT 123.Ø5 123.Ø75 464.7Ø
OFFSHORE SVC SHIPS INC 157.Ø25
OIL/GAS FUTURES OF TX 158.325
OIL BASE 152,48
OIL FIELD CONSTR CO 151.52
OIL FIELD CONSTR SVC 35,48
OIL MOP INC 151.5Ø5 464,5Ø 464,725
OIL TRANSPT CORP 156.95
OIL WELL ACIDIZERS 462,15
OPELOUSAS MUNI 153,65
OXY PETROL INC 49.2Ø
PAN AMER PETROL 48.6Ø 153.23
PANOLA HARRISON EC 48.38
PELICAN STATE ENVIRNM 464,Ø75
PENNZOIL 49,Ø4 156.9Ø 451.475 451,55
PENROD DRILLING 49.14
PETROLEUM ENGINEERS 35.32
PETROLEUM EQPT 464.125
PETROLEUM HELICOPT 122.8 122.85 122.9 123.Ø5 123.Ø75 122.75
PETROCHEM MAINT 151,715
PHILLIPS PETROL 48.9Ø 452.Ø5 458,35
PIPELINES INC 156,7Ø 156.9Ø
PLACID OIL 49,14 49,28
PLACID REFINING 464,4Ø
PLANTATION PIPE LINE 48.62
PLAQUEMINE MUNI 45,36 153.695
PLAQUEMINES PARISH PORT 156,35 156,45 156.5Ø
PLATFORM SVCS INC 156,5Ø
POINTE COUPEE EMC 37,74
POWER RIG DRILLING 153,62
PRODUCERS INC 49,5Ø
PROGRESS DRILLING 851,Ø625
QUINTANA PETROL 48,64
PAYNE MUNI 153.65
READING/BATES OFFSH DRILL 48.92
REBEL DRILLING 49.44
REMCO DRILLING 153,245
RIVER CORP OF DE 49.36
ROBERSON WELL SVC 158.265
ROWAN DRILLING 48.68
ST CHAS NATRL GAS 49,4Ø
ST JAMES PARISH 48.34
ST JOHN BAPT UTIL 48.12
SAWYER DRILL 153.23
SCURLOCK OIL 153,455
SEA DRILLING CORP 3Ø,78
SEISMIC EXPRT GRP 153.26 153.32
SHELL OIL 48.7Ø 49.12 15Ø,98 153.185 153.575 156.45 156.5Ø 156.6Ø 451.6Ø 452.Ø5 452,225 457,225 462.Ø5 49Ø,1Ø
SHREVEPORT MUNI 173.2Ø
SIMMONS OLD FLD CONSTR 43.ØØ 43.12
SKELLY OIL 173,2Ø
SMITH WELL SVC 49,16
SOHIO 33.3Ø
S COAST GAS 48.14
S LA DRILLING 35,74
SOUTHN NATRL GAS 49,Ø6 153.365
S LA EC 47.88 48.28
S LA EMC 47.86
S W GAS PROD 153.35
S W LA EMC 47.74 47.86 452.15
S W ELECTR PWR 48.1Ø 48.24 153.485 153.695
SOUTHWESTERN PWR ADMIN 164.275 164,375 167.825 167.925 4Ø8.65 416.6Ø
SSM OIL 153.Ø95
STONE OIL DISTRB 156.275 156.55
SUBURBAN UTIL 158.25
SUGAR BOWL GAS 48,16
SUN OIL 33,34 48,62 123.Ø5 123.Ø75 153,Ø2 153.215
SUPERIOR OIL 153.545 153,575 453,275
SURVEYS INC 42.96
SUTTON OIL 153,185
TECHE EC 37.86
TENNECO 33,26 156.975 158,22 452,1Ø 452,325 452,725 452,8Ø 452,85 453.65 462,525
TENNECO LATERRE 153,5Ø
TESORO CRUDE OIL 153,17
TEXACO 3Ø,8Ø 48,94 48,96 153,68 452,425 463.675
TEXAS EASTERN 48,82 48,94
TEXAS GAS EXPLOR 48.92

TEXAS GAS TRNSMSN 48.82 48.9Ø 451.7Ø
TEX INT'L PETROL 158.43
TEXAS PIPE LINE 153.29 451.55
TEXAS TRNSPT/TERMNL 464.75
TRANSCNTL GAS PIPELINE 48.74 49.48
TRANSOCEAN CONTRACTORS 156.9Ø
TRANSOCEAN OIL 49.26 156.5Ø
TRANSWESTERN PIPELINE 158.28
TRANSWORLD DRILLING 3Ø.74
TRIDENT PETROL 3Ø.7Ø
TRUNKLINE GAS 48.8Ø 49.Ø2
TWO R DRILLING 49.Ø8
UNION CARBIDE 151.685 153.Ø8 153.17 158.46 451.575 461.175 461.275 461.3Ø 461.325 461.625
UNION OIL OF CA 33.34 36.25 41.75 48.66 451.175 451.6Ø 462.475
UNION PRODUCING 47.52 49.Ø4
UNITED GAS PIPE LINE 48.78
UNO TEX PETROL 49.ØØ
UTILITIES SVC 153.Ø2 153.59
UTILITY CONTR 468.95
UTILITY MGT 463.4Ø
UTILITY OPERATORS 463.45
VALLEY EMC 37.86 451.Ø5 451.1Ø 451.2Ø
WALKER/HEROLD VENTURES 153.275
WARD DRILLING 158.43
WARREN OILWELL CEMENTING 35.28
WASH ST TAMMANY ELEC 37.82
WATSON OIL 49.58
WHITTINGTON OIL 153.Ø8
WILLIAMS DRILLING 49.46
WYBLE OILFIELD CONTR 35.9Ø
ZAPATA DEVELOP 35.Ø8 151.8Ø5
ZAPATA HAYNIE 153.155 153.395
ZAPATA OFFSHORE 156.95

MAINE

AMOCO 47.52 156.35 156.55 156.7Ø
BANGOR HYDROELEC 37.54 452.7Ø 457.15
CASCO POLLUTN CNTRL 156.3Ø 156.9Ø
CENTRL ME PWR CO 47.72 47.86 47.98 48.1Ø 151.685 151.715 151.745 151.775 151.8Ø5 153.53 451.Ø25 451.1Ø
CHEVRON 152.96 156.45
DEPT OF ENERGY (US) 167.85 168.45
E ME EC 47.82
GENERAL ELECTRIC 462.45
IRVING OIL 158.28
KENNEBUNK LITE/PWR 158.265
KENNEBUNK MUNI 153.425
LUBEC ELEC DISTR 153.47
ME PUBLIC SVC 37.86
ME STATE ENVIRONMENTAL 31.62 31.74 151.4Ø 151.355 151.46 159.24 159.3Ø 159.33 159.36 159.39 159.42 159.45 172.275
PORTS 156.95 156.975
ME YANKEE ATOMIC PWR NUCLEAR PWR FACILITY AT WISCASSET 153.455 153.545 153.725
N E PETROLEUM 158.295
N E UTILITIES 153.695
PIPE LINE SVCS 451.6Ø
RANGELY PWR CO 47.72
STONINGTON-DEER I PWR 153.5Ø
UNION RIVER EC 47.76

MARYLAND

ALLEGHENY PWR CORP 35.28
AMERADA HESS 152.87
AMOCO 451.625 456.275
ANN ARUNDEL CNTY UTIL 153.515
ATLANTIC PETROL SVCS 464.Ø75 464.125
BALTIMORE G&E 37.7Ø 42.98 47.86 47.92 47.96 48.Ø8 48.22 151.985 153.44 153.575 153.6Ø5 153.665 153.71 451.1Ø
(NUCLEAR PWR FACILITIES CALVERT CLIFFS 1 & 2 AT LUSBY ON USE 153.665)
BALTIMORE MUNI 48.Ø6
BECHTEL CONSTR 151.655 151.755 151.8Ø5
BECHTEL POWER 463.575
BP OIL 451.875 452.ØØ
CAMBRIDGE GAS 47.8Ø
CENTREVILLE MUNI 153.62
CHESAPEAKE UTIL 47.8Ø
CHEVRON OIL 451.75
CHOPTANK ELEC 48.48
CITIES SVC OIL 47.48
COLUMBIA GAS SYST 153.65
COLUMBIA GAS TRANSMSN 33.38
COLUMBIA L N G 33.38 451.6Ø 451.7Ø
CONOCO 153.29 451.375
CONOWINGO PWR 37.64 37.73 37.78
DELMARVA P&L 3Ø.84 33.14 48.24 48.3Ø 48.42
DEPT OF ENERGY (US) 4Ø.47 162.Ø5 162.225 169.95 17Ø.Ø75 41Ø.35
DISTRICT UTIL 461.3Ø
EASTERN PETROL 151.655 158.46
E SHORE GAS 37.52
EASTON MUNI 153.41
ECOLOGICAL ANALISTS INC 156.35
ENVIRONMENTAL ELEMENTS 151.625
ENVIRONMENTAL MEASUREM 151.625
EXXON OIL 451.975 461.775 464.4Ø
FREDERICK GAS 153.5Ø
GENERAL ELECTRIC 153.14 153.2Ø5 153.275 461.325 461.45 461.6Ø 461.725 462.325 462.375 464.Ø75 464.875
HAGERSTOWN MUNI 153.53
HOWARD CNTY ELEC 462.Ø75
MAHER TERMINALS 467.825
MD MARINE UTIL 153.5Ø
MD STATE ENVIRONMENTAL 151.Ø25 159.24
PORTS 156.425
NATRL RESOURCES POLICE 156.45 156.5Ø 157.1Ø
MOBIL OIL 158.37
NUCLEAR REGL COMMISSION 164.275 167.875 41Ø.Ø75 411.2Ø
PENNA ELECTRIC 48.4Ø
PHILLIPS & JORDAN 451.8Ø
PHILLIPS PETROL 49.58
POTOMAC EDISON 158.16 158.2Ø5 158.25 464.15
POTOMAC ELEC PWR 37.58 37.66 37.82 451.Ø25 451.Ø5 451.Ø75 451.125 451.15 451.25
ST MICHAELS MUNI 153.53
SHELL OIL 463.2Ø
SHIFLER ELEC ASSN 31.ØØ
S BELL ELEC CO 463.3Ø
S MD EC 158.145 158.22
S MD UTIL 47.68
S STATES COOP 151.535
SUBURBAN UTIL CONTR 453.425
SUSQUEHANNA ELEC 37.78
TENNECO 151.685 153.335
TRANSCONTNTL GAS PIPELINE 48.74
WELSBACH ELEC 461.975
WESTINGHOUSE 31.2Ø 151.925 153.185 495.9375
WHISKEY RIDGE ELEC 463.275
WINDSOR ELEC 461.55 464.3Ø

MASSACHUSETTS

ADAMS MUNI 158.19
ALGONQUIN GAS TRANSMSN 49.Ø2
BARNSTABLE TOWN MUNI 47.74
PORT 156.6Ø
BAY STATE GAS 47.82 47.84 158.22
BELMONT MUNI 153.62
BERKSHIRE ELEC CABLE CO 153.335
BERKSHIRE GAS 47.7Ø
BLACKSTONE VLY ELEC 37.7Ø
BOSTON EDISON 37.78 153.16 153.425 153.5Ø 153.86 158.16 468.85 471.3125 471.3375 471.3625 471.3825
(NUCLEAR PWR FACILITY PILGRIM 1 AT PLYMOUTH USES 37.78 153.5Ø)
BOSTON FUEL TRNSPTN 156.9Ø
BOSTON GAS 37.62 153.44 153.53 158.13 158.18
BOYLSTON MUNI 48.38
BRAINTREE ELEC 47.76
BREWSTER MUNI 47.74
BROCKTON EDISON 37.6Ø 43.ØØ 153.575 153.65 153.695
CAMBRIDGE ELEC LITE 158.25
CAMBRIDGE GAS 451.25 452.3Ø
CANAL ELEC 158.175
CAPE & VINEYARD ELEC 37.66
CAPE COD GAS 48.36
CHICOPEE MUNI 37.66
CHILMARK PORT 156.45 156.6Ø
CITIES SVC OIL 151.775 464.5125 469.5125
COMMONWEALTH GAS 37.46 48.Ø2 451.25
DEAN OIL 43.48 49.54
DEPT OF ENERGY (US) 167.85 167.875
DISTRIGAS CORP 156.5Ø 467.925
EDGARTOWN PORT 156.3Ø 156.45 156.6Ø
FALL RIVER ELEC 37.6Ø
FALL RIVER GAS 153.47
FALL RIVER MUNI 47.84
FALMOUTH MUNI 47.74
FITCHBURG G&E 37.58
GENERAL ELECTRIC 33.14 153.Ø5 153.Ø8 153.11 153.2Ø 153.32 153.38 153.43 154.57 461.1Ø 461.375 461.44 462.45 462.9Ø 464.1Ø
GENERAL PETROL 452.Ø75
GEORGETOWN MUNI LITE 37.64
GROVELAND MUNI 153.62
HARTFORD ELEC LITE 47.98
HARWICH MUNI 47.74
HAVERHILL GAS 48.18
HINGHAM MUNI LITE 48.34
HOLYOKE MUNI 47.72 153.65
HUDSON MUNI LITE/PWR 43.38
HULL TWN HARBORMASTER 156.45 156.6Ø
HUMBLE OIL 153.395
HUNTINGTON ELEC LITE 48.16
JET LINES 48.64
JPS EQPT INC 454.ØØ
LAUREL FUEL 49.18
LOWELL GAS 153.71
MARBLEHEAD MUNI 37.5Ø
MA ELECTRIC CO 47.68 47.96 48.22 48.28 48.3Ø 48.42 48.78 48.5Ø 48.54
MA MARINE BIO LAB 156.3Ø
MA STATE NATRL RESOURCES 31.34 31.38 31.46 31.5Ø 151.2Ø5 151.235 151.31 151.37 151.415 159.27 159.3Ø 159.39 159.42 171.575
PORT AUTHORITY 156.Ø15 (FIRE 154.22 453.75) (SECURITY 155.19)
STATE LAB 155.295
MICHAUD & RAYMOND OIL 152.9Ø
MIDDLEBORO MUNI 47.94 157.56
MIDDLETOWN MUNI 48.46
MILTON MUNI 48.1Ø
MOBIL OIL 151.625 158.37 464.55 469.55
MONTAUP ELEC 48.Ø8
NANTUCKET ELEC 153.53
NARRAGANSETT ELEC 48.48
NEW BEDFORD GAS & EDISON LITE 37.54 37.66 37.76 173.35 451.Ø25 451.25 456.125
NEW ENGL NUCLEAR CORP 484.2375
NEW ENGL PWR SVC 47.88 47.96 48.Ø6 48.12 48.22 48.28 48.3Ø 48.42 48.44 48.48 48.5Ø 48.54 152.975 451.15
N ATTLEBORO MUNI 47.7Ø
N E PETROLEUM 153.245 156.9Ø 158.415 451.425 451.55 462.55 462.575
N E UTIL 173.235
NORTHAMPTON GAS LITE 158.22
OAK BLUFFS PORT 156.3Ø 156.45 156.6Ø
ORLEANS MUNI 47.74
PEABODY MUNI 37.52 48.46
PLYMOUTH PORT 156.425 156.6Ø
POWER LINE CONSTR OF AMER 35.48
PRINCETON MUNI 48.38
READING MUNI 47.78
ROSES OIL SVC 156.9Ø
ROWLEY MUNI 153.62
SALEM PORT 156.425 156.6Ø
SANDWICH MUNI 153.425
SHELL OIL 48.58 49.26 156.9Ø
SOCHIAS GAS/OIL 151.58
S HADLEY MUNI 153.41
SOUTHBORO MUNI 47.94
SPRINGFLD GAS LITE 47.78
SPRINGFLD MUNI 37.52
STERLING MUNI 48.38
TAUNTON MUNI LITE 158.19
TEMPLETON MUNI 48.38
TENNECO 48.66 451.7Ø
TEXACO 156.5Ø 156.9Ø
TISBURY PORT 156.3Ø 156.45 156.6Ø
TRANSCONTL GAS PIPELINE 48.74
UNION PETROL 156.5Ø 156.9Ø 469.425
WAREHAM PORT 156.425 156.45
WACHUSETT GAS 153.53
WAKEFIELD MUNI 37.5Ø
WARE MUNI 451.Ø25
W MASS ELEC 37.74 47.86 47.98 48.Ø4 48.16 48.34 451.25
WESTFIELD GAS/ELEC 48.14
WESTINGHOUSE 153.Ø5
WOODS HOLD OCEANOGR INST 151.685 156.3Ø 156.95
WORCESTER GAS/LITE 37.46 48.Ø2
YANKEE ATOMIC ELEC NUCLEAR PWR FACILITY AT ROWE 48.3Ø 48.48
YARMOUTH MUNI 47.74

MICHIGAN

ALGER DELTA EC 47.9Ø 452.375
ALMA MUNI 452.625
ALPENA MUNI 452.625
ALPENA PWR 48.22
AMER WASTE OILS 461.2Ø
AMOCO 48.6Ø 151.595 151.865 151.955 451.275 461.275
BATTLE CREEK GAS 48.34 153.65 158.235
BAY CITY MUNI 153.41
BAYFIELD EC 451.675 456.675
BENTON HARBOR MUNI 153.53
BIGARD DRILLING 49.48
BIRMINGHAM MUNI 153.71
BREWERS CITY DOCK 451.925
BUCKEYE PIPE LINE 33.22
C A KOLENDA 158.19
C A PERRY & SONS 158.37
CHARLEVOIX PORT 156.45
CHARTER TWP MUNI 158.22
CHERRYLAND REC 48.3Ø 451.1Ø
CITIES SVC OIL 3Ø.6Ø 3Ø.84 47.48 151.535 151.865 151.895 464.5125 469.512Ø
CLAWSON MUNI 153.41
CLAY TWP MUNI 153.695
CLOVERLAND EC 37.54 153.65 153.68
COLDWATER MUNI 153.47
CONSUMERS PWR CO 42.98 47.7Ø 47.78 47.84 47.98 48.ØØ 48.Ø2 48.1Ø 48.12 48.16 48.2Ø 48.24 48.28 48.36 48.4Ø 48.44 48.48 153.725 154.6Ø 451.15 451.25 451.425 453.1Ø 46Ø.75 46Ø.85
(NUCLEAR PWR FACILITY AT BIG ROCK POINT MAY USE ANY OF ABOVE)
(NUCLEAR PWR FACILITY PALISADES STATION AT SO HAVEN USES 47.78 47.98)
CONTEMPORARY CRUDE PRODUCERS 153.365
DETROIT EDISON 3Ø.84 3Ø.88 33.14 42.98 153.5Ø 153.515 153.53 153.56 153.575 153.59 153.6Ø5 153.62 153.635 153.665 154.57 154.6Ø 158.46 451.Ø75 451.1Ø 451.2Ø 46Ø.Ø5 46Ø.7Ø 46Ø.75 46Ø.825
DETROIT MUNI 37.62 451.15 451.375
DOW CHEMICAL 35.Ø2 43.18 48.13 48.74 151.655 151.775 151.835 153.23 153.32 154.57 154.6Ø 157.74 158.31 452.625 452.7Ø 46Ø.8Ø 461.1Ø 462.325 462.5Ø 463.275 49Ø.9125
DUAL DRILLING 3Ø.7Ø
EDISON SAULT ELEC 48.18
ELK RAPIDS PORT 156.425
DEPT OF ENERGY (US) 164.25 164.375 167.825 167.875 413.8Ø
ENVRNMNTL PROT AGCY (US) 173.91 4Ø8.ØØ
ENVRNMNTL RESEARCH INST 35.96
ESCANABA MUNI 37.46
FAULEY OIL 48.66
FISHER & JONES 153.275
FLINT MUNI 153.65
FRUIT BELT EC 153.71
GENERAL ELECTRIC 461.325 461.5Ø 461.65 461.775 462.ØØ 463.2Ø 463.65
GENESEE CNTY PWR 451.475
GRAND HAVEN MUNI 452.625
GRAND RAPIDS MUNI 153.425
GREAT LKS ENVRNMNTL SVC 462.Ø5
GREAT LKS EXPLORATION 158.415
HALLIBURTON RESOURCE MGT 47.44
HARBOR SPRNGS PORT 145.425 156.45
HARRIS OIL 35.92 158.37
HOLLAND MUNI 158.13
HOMER PORT 156.5Ø
HOUSEKNECHT OIL PROD 48.76
HUMBLE OIL 451.65
IND & MI ELEC 31.2Ø 37.7Ø 37.74 156.975 451.Ø25 451.Ø5 451.Ø75 462.75 467.775 467.8Ø 467.825 467.85 467.875 467.9Ø
(NUCLEAR PWR FACILITIES COOK 1 & 2 AT BRIDGMAN USE ANY OF ABOVE FREQUENCIES)
JACKSON MUNI 153.71
KALAMAZOO MUNI 153.25 153.41
L&G DRILLING 33.5Ø
LAKES COMMUNIC 158.37
LANSING MUNI 153.41 153.695
LEASE MGT ING 49.42
LEELANAU CNTY PORT 156.45
MAKI OIL 153.Ø2
MARATHON OIL 35.94 152.9Ø 153.11 158.37 451.775 467.275
MARATHON PIPE LINE 48.58
MARINE POLLUTN CONTRL CO 156.5Ø
MARQUETTE PORT 156.425 156.45
MI CONSOL GAS 48.46 48.56 158.19 451.Ø5 451.25
MI GAS STORAGE 33.3Ø 49.Ø4 49.Ø8
MI GAS UTIL 48.ØØ 48.Ø6 48.38
MI-OH PIPE LINE 153.35
MI POWER CO 37.62 37.7Ø 153.41
MI STATE ENVIRONMENTAL 44.64 44.72 44.8Ø 46.58 158.465 159.36
WATERWAYS 156.45 156.6Ø 157.1Ø
MI-WI PIPE LINE 48.9Ø 49.1Ø
MID AMER PIPELINERS 43.1Ø
MILLER BROS 153.245 153.3Ø5
MOBIL OIL 153.11 451.55 452.175 462.15
MUELLER PIPELINERS 35.4Ø
MUSKEGON DEVEL CORP 153.Ø35
NILES MUNI 173.25
N AMER DRILLING 48.98
N MI EC 47.Ø5 47.88
N MI NATRL GAS 33.18
O&A EC 37.54
OCEANA EC 37.54
ONTONAGON PORT 156.425 156.6Ø
ONTONAGAN MUNI 47.9Ø 451.325
PAN AMER PETROL 48.6Ø
PANHANDLE EASTERN PIPEL 48.7Ø
PARAMOUNT OIL CASTING 487.35
PARKER DRILLING 49.16
PAW PAW MUNI 153.47
PENINSULA GAS 48.54
PETOSKEY MUNI 158.25
PIPE LINE SVC 48.82
PT HURON MUNI 153.65
PT SANILAC HARBOR 156.45
PRESQUE ISL EC 48.3Ø 451.1Ø
PYRAMID OIL 151.595
REISS OIL TERMNL 156.5Ø
ROCKET PETROLEUM 451.9Ø 463.975
SAGINAW MUNI 158.235
SAPPINGTON OIL 153.395
SHELL OIL 48.64 49.14 452.25
S E MICH GAS 47.8Ø 47.9Ø 47.92 153.455 451.175 451.225 451.575
SUN OIL 35.7Ø 48.72 153.11 467.75
THUMB EC 153.71
TOP-O-MICH REC 47.88
TOPE INC 153.Ø55

TOTAL PROPERTIES 3Ø.74 451.6Ø 451.65 451.7Ø
TRAVERSE CITY
MUNI 158.13
PORT 156.45 156.6Ø
TRI COUNTY EC 37.54
UNION OIL 153.14 158.37
UPPER PENINSL PWR 37.86 158.145 158.19
WAGNER DRILLING 3Ø.66
WATERFORD MUNI 153.68
WAYNE MUNI 153.41
WESTERN CRUDE OIL 48.76
WISC-MICH PWR 37.7Ø
WISC PUB SVC 47.74 47.8Ø 47.86 47.94
WOLVERINE EC 37.54
WOLVERINE PIPELINE 48.74 48.84
WOLVERINE PWR 153.47
WYANDOTTE MUNI 153.44

M I N N E S O T A

AGRALITE COOP 153.47
ALEXANDRIA L&P 153.41
AMOCO OIL 48.66 151.685 151.775
ANOKA EC 153.44 158.25
ARROW HEAD EC 48.46 153.515
AUSTIN MUNI 153.47
BELTRAMI EC 153.575
BLUE EARTH NICOLET EC 153.56
BRAINERD MUNI 153.53
BROWN CNTY EC 153.725
CARLTON CNTY COOP 153.41
CLARKE OILWELL SVC 151.595
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E CENTRAL ELEC 153.515
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(NUCLEAR PWR FACILITY AT MONTICELLO USES 47.8Ø 153.5Ø 153.665 173.3Ø 173.35 451.125)
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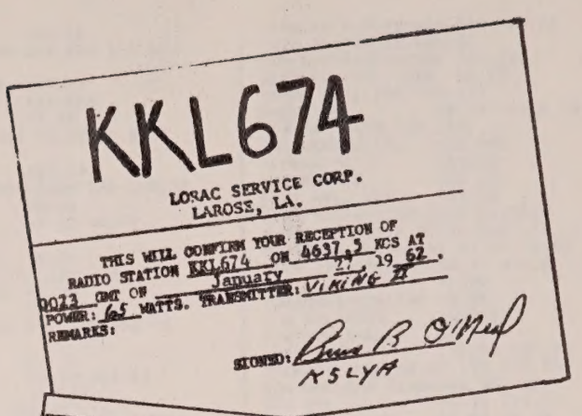
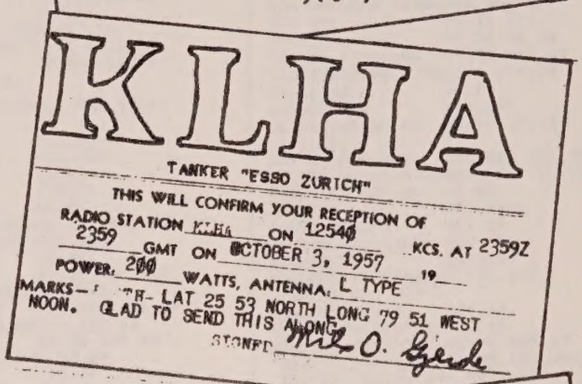
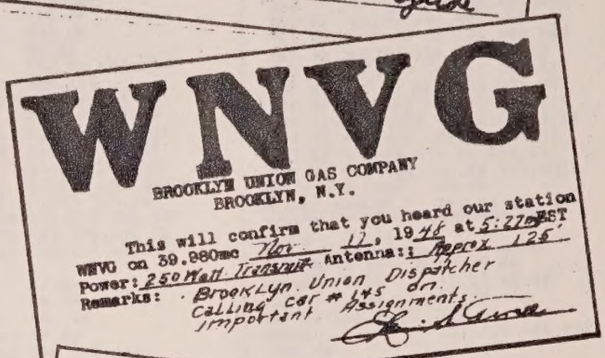
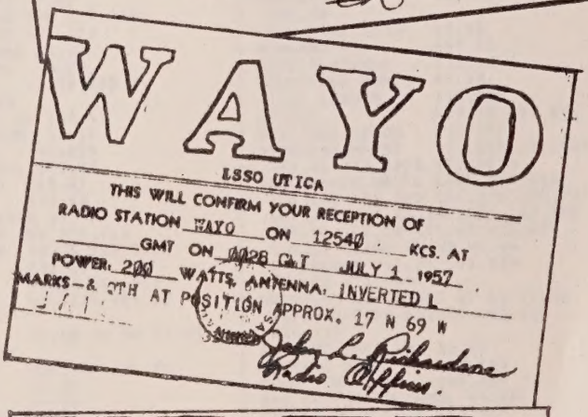
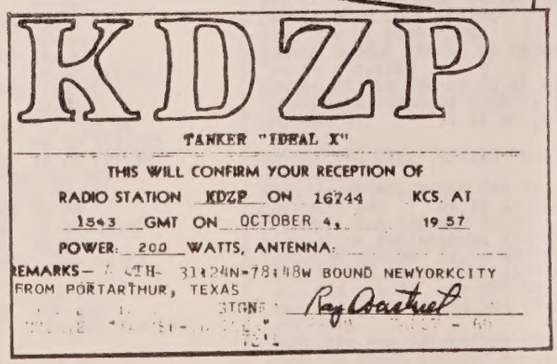
DEPT OF ENERGY (US) 34.99 36.Ø5 36.33 36.39 4Ø.47 41.Ø3 41.31 148.35 148.47 149.22 15Ø.555 155.895 162.1Ø 162.225 162.475 163.Ø0 163.375 164.Ø25 164.1Ø 164.175 164.225 164.25 164.725 164.31 164.35 164.375 164.4Ø 164.475 164.525 164.675 164.7Ø 164.75 164.775 164.96 164.985 165.26 166.2Ø 166.275 167.19 167.825 167.85 167.875 167.925 167.975 168.Ø0 168.45 168.475 169.Ø0 169.2Ø 169.275 169.6Ø 169.85 169.935 17Ø.Ø1 17Ø.Ø25 17Ø.125 17Ø.35 17Ø.4Ø 17Ø.725 171.Ø0 171.15 171.2Ø 171,235 171.26 171,325 171,388 171,625 171.95 172.3Ø 172.275 173.Ø0 173.Ø5 173.175 173.51 173.61 173.66 173.685 173.71 4Ø6.3Ø 4Ø6.425 4Ø6.5Ø 4Ø6.55 4Ø6.625 4Ø6.7Ø 4Ø6.8Ø 4Ø6,912 4Ø7.Ø0 4Ø7.Ø5 4Ø7.35 4Ø8.Ø25 4Ø8.1Ø 4Ø8.55 4Ø8.95 4Ø9.212 41Ø.Ø0




KLHA
TANKER "ESSO ZURICH"
THIS WILL CONFIRM YOUR RECEPTION OF
RADIO STATION KLHA ON 12540
2359 GMT ON OCTOBER 3, 1957 KCS. AT 2359Z
POWER, 200 WATTS, ANTENNA: L TYPE
MARKS— TH- LAT 25 53 NORTH LONG 79 51 WEST
NOON. GLAD TO SEND THIS ALONG.
SIGNED


WNVG
BROOKLYN UNION GAS COMPANY
BROOKLYN, N.Y.
This will confirm that you heard our station
WNVG on 30,980mc Nov 11, 1946 at 5:27 EST
Power: 250 Watt Transmitter Antenna: Approx 126'
Remarks: Brooklyn Union Dispatcher
Calling car #145 on
important Assignments.


WAYO
ESSO UTICA
THIS WILL CONFIRM YOUR RECEPTION OF
RADIO STATION WAYO ON 12540 KCS. AT
GMT ON 0028 GMT JULY 1 1957
POWER: 200 WATTS, ANTENNA: INVERTED L
MARKS— TH AT POSITION APPROX. 17 N 69 W
Radio Officer.


KDZP
TANKER "IDEAL X"
THIS WILL CONFIRM YOUR RECEPTION OF
RADIO STATION KDZP ON 16744 KCS. AT
1543 GMT ON OCTOBER 4, 19 57
POWER: 200 WATTS, ANTENNA:
REMARKS— TH- 31:24N-78:48W BOUND NEWYORKCITY
FROM PORTARTHUR, TEXAS
SIGNED:

KKL574
KJLJHA
WMVG
WAJYO
KKDZ7P

410.05 410.35 410.725 410.80
411.025 411.075 411.15 411.20
411.60 412.30 412.35 412.65
412.75 413.825 413.85 413.875
413.95 414.775 415.15 416.025
416.30 416.50 416.60 416.712
416.85 416.925 416.975 419.125
419.35 419.55
ENVIRNMNTL MON & SUPPORT LAB
164.45 165.41 173.025 173.91
413.80
HARNEY EC 153.41
HEAVY METALS TECHNOL 452.075
INCLINE VLG MUNI 153.65
LINCOLN CNTY MUNI 48.34
LINCOLN CNTY PWR DIST 47.84
LOS ANGELES CA WAT/PWR 47.76
48.36 153.47
MINERAL CNTY PWR 153.71
MNT WHEELER PWR 153.44 158.16
NEVADA PWR CO 48.10 153.47
OVERTON PWR DIST #5 477.70 48.34
ROUND HILL IMPRV DIST 153.68
SIERRA PACIF PWR 48.02 48.16
158.13
SIERRA SOLAR SYST 464.225
S CALIF EDISON 153.62 158.13
158.16 158.235
S PACIF PIPE LINES 451.675
S W GAS 48.62 48.80
SPRING CREEK UTIL 151.835
SUN VLY MUNI 153.50
TITANIUM METALS CORP 153.05
462.225
TRI STATE DRILLING 461.85
VALLEY ELEC 153.41 153.71
WELLS RUR ELEC 153.56 158.22

N E W H A M P S H I R E

ATLANTIC TERMNL PETROL 154.57
156.50
CENTRL VT PUB SVC 37.56 37.68
452.625
CONCORD ELEC 37.58
CONCORD NATRL GAS 47.84
EXETER/HAMPTON ELEC 37.58
FELLOWS OIL 153.035
GAS SVC INC 153.47
GENERAL ELECTRIC 153.38
GRANITE STATE ELEC 48.48 48.96
GRANITE STATE GAS TRNS 37.74
GREENVILLE ELEC 47.86
MANCHESTER GAS 153.59
NEW ENGL PWR SVC 47.88 47.96 48.12
48.30 48.42 48.48 48.54 451.15
NH ELEC COOP 47.90 48.32
452.20
NH STATE
ENVIRONMNTL 151.34 159.315
159.345 467.45
PORTS 156.65
N E PETROL 451.425
NORTHERN UTIL 48.52
PERINI PWR CONSTR 451.725 452.075
PIPE LINE SVCS 456.60
PUB SVC CO OF NH 153.485 153.515
158.25 451.175 EMERGENCY 47.62
(NUCLEAR PWR FACILITY AT SEA-
BROOK USES 451.175)
SUBURBN NATRL GAS 151.805
WOODSVILLE MUNI 47.94

N E W J E R S E Y

ALGONQUIN GAS TRNSMSN 49.02
AMERADA HESS 452.075
AMERICAN DRILLING 461.25
AMOCO OIL 31.60 451.225
462.625
ATLANTIC CITY ELEC 37.60 47.88
47.98 48.12 153.725
BAYONNE TERMINAL 153.17
BECHTEL CORP 151.52 151.55
151.58 152.915 152.945 152.975
153.005 153.035 451.90 451.95
BOONTON MUNI 37.64
BP OIL 153.23 451.925
452.075
BUCKEYE PIPE LINE 33.22
BUTLER MUNI 37.66
CHEVRON OIL 152.90 153.23
156.50 451.55 451.65 461.0125
465.00 466.0125
CITIES SVC OIL 451.175 464.5125
469.5125
COASTAL SVCS 158.48 471.5375
COLONIAL PIPE LINE 49.40
CONOCO 49.00 49.54
123.05 123.075 153.05
DELAWARE RIV PORT AUTH 154.10
DEPT OF ENERGY (US) 164.275
164.375 167.975
DEPTFORD MUNI 37.72
ELIZABETHTWN GAS 37.76 37.82 47.72
472.9625
ENVIRNMNTL PROT AGCY (US) 164.05
164.45
ENERGY TERMINAL SVC 467.925
EXXON 33.36 35.98
153.29 153.35 156.45 451.60
451.975 501.6125
565 CORP 49.58
GAESS ENVIRNMNTL 150.98
GENERL AMER TRNSPT 153.17
GENERAL ELECTRIC 151.715 461.15
461.475 461.525 463.20 463.35
463.675 857.4375
GLOUCESTER MUNI 158.175
GULF OIL 49.48
HACKETTSTWN MUNI 153.695
HARBORSIDE TERMNL 462.175
HARRIS-CAMDEN TERMNL 43.44
HUMBLE OIL 153.29 153.35
460.6625 461.60 461.70 465.6625
INTERNATNL TERMNL 464.30
JERS CNTRL P&L 153.425 153.605
153.665 153.71 158.265
(NUCLEAR PWR FACILITY OYSTER
CREEK AT TOMS RIVER USES
153.425 153.605 153.665 153.71)
JERSEY CITY MUNI 48.20
JERSEY ENVIRNMNTL MGT 151.775
LEG&G ENVIRNMNTL SVCS 156.975
MAHER TERMINALS 154.54 467.825
METRO PETROL 462.175
MID ATL REFINERY 507.9875
MOBIL OIL 48.80 152.90
153.05 153.29 156.50 156.60
156.70 156.90 462.425
MONMOUTH CNTY PORT 156.10 156.425
156.45
MORRISTOWN MUNI 48.50
NAPTC ENVIRNMNTL CONFRNC 33.14
NJ NATRL GAS 153.485 153.53
158.145
NJ P&L 48.54 153.425
153.605 153.665 158.265
NJ STATE ENVIRNMNTL 45.00 151.265
151.415 159.27 159.285 159.30
159.345 159.375 159.465 462.55
NEWARK MUNI 153.47
OCEAN CNTY PORT 156.425 156.85
NORTHVILLE LINDEN TERMNL 464.5375
464.60
OCEANIC SOCIETY 136.975
OIL CITY PETROL 451.825
PETRO MECHANICS 471.8875 474.8875
PETROL COMBUSTION INC 464.75
PUB SVC ELEC/GAS 33.14 33.18 47.88
47.92 47.98 48.14 48.16 123.05
123.075 153.47 153.62 154.57
154.60 154.625 158.13 158.19
173.25 451.20 451.275 464.325
(NUCLEAR PWR FACILITIES SALEM
1&2 USE ABOVE FREQS)
REINAUER PETROL 152.90 464.825
RKD OIL RESOURCES 151.565
ROLLINS ENVIRNMNTL SVC 154.515
ROYAL PETROL 460.7625 465.7625
SHELL OIL 153.20 158.235
SOHIO PIPE LINE 48.58
S BRUNSWICK UTIL 47.76
S JERSEY GAS 153.44 153.65
153.695
S RIVER MUNI 153.50
SUN OIL 43.12 47.64
151.595
SUSSEX REC 47.78
TENNECO 48.66 153.335
TEXACO 49.32 153.23
156.90
TEXAS EASTERN 48.94
TRANSCONTL GAS PIPELINE 48.74
VINELAND MUNI 47.74
UNIVERSAL TERMNL/GAS 154.57 154.60
WESTINGHOUSE 31.24 153.095
466.375
ZAPATA HAYNIE 158.31

N E W M E X I C O

AA OILFIELD SVC 47.64
A&M DRILLING 463.375
ALBUQUERQUE MUNI 47.70 48.02
A OK DRILLING 463.60
AMERADA HESS 49.38
AMOCO PRODUCTION 30.78 49.14
151.535 451.275 451.60
ANADARKO PRODUCTION 48.72 464.175
ARCO 48.56 153.17
153.26
ARIZ PUB SVC 153.41 153.425
ARROW GAS 157.56
ARVIN NORWOOD DRILNG 33.32
ATEX OIL 461.025 461.075
AZTEC OIL/GAS 49.00 452.65
AZTEC WELL SVC 157.74
BARBER WELL SVC 461.275 461.85
BASIN FUELS 153.095
BENSON-MONTIN-GREER DRILL 48.66
BOKUM RESOURCES 452.175
C&S OIL 154.515
CACTUS DRILLING 153.68
CAPT CAPRIZOZO NATRL GAS 153.695
CENTRL NM EC 47.94 153.47
CENTRL VLY EC 153.47
CHASE WELL SVC 154.44
CHESNEY DRILLING 153.065
CHEVRON OIL 451.225 451.60
CITIES SVC OIL 153.29 158.43
CLARKE OILWELL SVC 151.595
CLOVIS OIL 30.88
CLYDE JONES DRILLING 153.17 453.35
COLEMAN DRILLING 153.185
COLOMEX OIL/GAS 152.915
COLUMBUS EC 153.44
COMMUNITY PUB SVC 48.30
CONOCO 49.20 453.975
CONTINENTAL DIVIDE EC 153.47
DA&S OIL WELL SVC 43.52 452.625
DA&S OIL WELL SVCING 47.64
D&S ROUSTABOUT 152.99
DEPCO INC 48.60
DONNELLY DRILLING 49.12
DRILCO 464.10
DUGAN PRODUCTION 153.035 153.365
463.875
EARTH RESOURCES 152.99
E NM NATRL GAS 153.245
EL PASO ELEC 48.50
EL PASO NATRL GAS 48.74 48.80
48.86 153.38
E-M-W GAS 173.35
ENGINEERING/PRODUCTION SVC 158.37
EXXON 48.86
FARMERS EC 47.72 48.26
464.45
FARMINGTON MUNI 48.02
4 CORNERS DRILLING 158.355
GACKLE DRILLING 48.70
GENL AMER OIL 153.11
GENERAL ELECTRIC 151.955 158.43
464.225
GENERAL PETROL 44.42
GENES WELL SVC 47.48 461.65
GETTY OIL 158.37
GOLSON OILWELL SVC 462.15
GREAT WESTRN DRILLING 48.90
GULF OIL 49.02 151.49
153.35 451.775
HALLIBURTON RESOURCE MGT 43.14
47.44
HANSON OIL 153.08
HEMONT OIL 452.325
HILLGER OIL 35.40
HOBBS GAS 158.16
HONDO OIL/GAS 48.56
HOWARD & SONS DRILL 151.655 157.74
HYDROSTATIC PIPE 451.875
JAL GAS 48.08
JEMEZ MTNS EC 37.66 452.225
JOHNSON DRILLING 461.875
JONES DRILLING 452.125 463.60
KACHINA EXPLOR/DRILL 151.58
KEETH GAS 43.06 151.55
KERR-MCGEE NUCLEAR 47.64
KIT CARSON EC 153.71
LAS CRUCES MUNI 456.15
LEA CNTY EC 47.86
LLL DRILLING 154.54 463.45
LO DRILLING 464.175
LOHMANN OILWELL SVC 151.535
LOS ALAMOS SCI LAB 34.14 122.8
148.47 162.613 163.375 164.325
164.375 164.425 164.45 164.50
165.263 166.25 166.325 166.825
167.825 167.85 167.875 167.975
168.45 170.725 171.20 171.263
171.325 171.388 171.525 171.625
172.300 406.225 406.375 406.75
407.175 408.125 408.175 410.00
416.05
LOVINGTON MUNI 37.54
MARATHON OIL 48.82 451.475
MARCUM DRILLING 464.10
MARTINEZ OIL/GAS 47.60
MECHANICAL FIELD SVC 154.515
MESA PIPELINE CO 464.175
MID AMER PIPELINE 49.36
MILLARD DECK OIL 48.72
MOBIL OIL 49.18 153.14
153.305 158.295
MORA SAN MIGUEL EC 153.41
MTN STATES CONSTR 43.32
MTN STATES OIL 151.835
MTN STATES PETROL 463.25
MUTUAL DRILLING 152.87
MYERS OIL 152.87
NATRL GAS PIPELINE 33.30
NAVAJO OILFIELD SVC 151.715
NAVAJO REFINING 49.24 153.395
NAVOPACHE EC 158.25
NM ELEC SVC 37.66 452.275
NM PUB SVC 451.125 451.20
NM STATE
ENVIRNMNTL 31.50 44.80 44.92
151.295 159.42
PORTS 156.425 156.85
UTILITIES 47.94
NEWMONT OIL 48.88
NORTHN NATRL GAS 33.18
N NM GAS 151.655
N RIO ARRIBA EC 153.425
N W PIPELINE 48.68 457.25
OCCIDENTAL PETROL 154.54
ODOM DRILLING 463.375
OILFIELD TOOL/SUPPLY 152.90
OTERO CNTY EC 48.26 153.725
PAN AMER PETROL 30.78 153.08
PENDLETON OIL/GAS 151.595
PENROSE PRODUCTION 48.72
PETRO-LEWIS CORP 33.30
PHILLIPS PETROL 33.38 49.58
PLAINS ELEC GEN 37.54
PUB SVC CO OF NM 47.86 48.18
451.125
RATON MUNI 153.47
RESERVE OIL/GAS 158.295
RIO GRANDE PWR 412.025 419.875
415.075
ROACH DRILLING 153.05
RUIDOSO NATRL GAS 152.885
SALAZAR BROS DRILLING 451.975
SANDIA LABS 148.47 149.25
149.55 155.37 162.59 162.595
163.00 163.79 164.00 164.125
164.225 164.25 164.275 164.30
164.35 164.375 164.40 164.725
164.935 164.96 164.975 164.985
165.01 165.26 165.80 166.325
167.975 169.725 170.025 170.075
171.20 173.05 409.50 410.00
410.35 410.80 411.025 412.70
412.75 413.80 416.60
SCHIEFFER DRILLING 151.955
SERVICE PIPE LINE 49.14
SHARP DRILLING 153.275
SHELL OIL 48.54 48.58 48.64
48.78 49.10 153.155
SHENANDOAH OIL 468.425
SIERRA EC 153.50
SOCORRO EC 153.71
SOLT WELL SVC 153.02
SONNYS OILFIELD SVCS 44.38
SOUTHERN PACIF PIPELINES 153.11
SOUTHERN UNION GAS 47.78 48.02
158.13 158.175 158.31 451.05
S W EC 47.86
SOUTHWESTERN INC 49.28
S W OIL SVCS 464.45
S W PUB SVC CO 37.50
SPRINGER EC 153.62 451.15
STEWART BROS DRILL 153.125 452.725
SUN NUCLEAR RESEARCH 451.375
SUN OIL 49.34 153.14
TEXACO 49.08 49.30
TEX-NM PIPELINE 48.92 451.65
TRANSWESTERN PIPELINE 153.20
TRIGG CO 48.68
TUCSON G&E 451.025
UNION OIL OF CA 37.48 49.22
451.675
UNITED NUCLEAR 451.875 461.50
UNITED NUCLEAR-HOMESTAKE 154.49
UNO-FLEX PETROL 49.00
WALLACE OIL 462.125
WALSTAD OIL 461.85
WARTON DRILLING 451.375
WASHAM GAS 152.96
WELDONS ROUSTABOUT 151.655
152.36 461.425
WELL ANALYSIS 152.99
WESLEY MARTIN OIL 35.96
WESTERN AREA PWR ADMIN 148.47
162.59 162.595 162.80 162.805
162.81 163.39 163.60 163.79
163.795 164.00 164.35 164.865
165.80 166.42 166.66 167.19
167.19 167.195 167.81 167.825
167.85 168.45 406.585 406.785
409.025 409.05 409.075 409.10
409.125 409.175 409.212 409.25
409.30 409.325 409.35 410.35
411.60 412.65 413.85 416.35
416.40 416.535 416.60 416.685
YATES DRILLING 48.66
YAVAPI EXPLOR 152.90 451.85

N E W Y O R K

ALGONQUIN GAS TRNSM 49.02
AMERADA HESS 31.32 48.98
153.155 154.57 158.37
AMITYVILLE PORT 156.45
AMOCO 451.725 456.275
464.70
ARCO PIPE LINE 48.86
ASHLAND OIL 463.75
BATH ELEC/GAS 153.59
BOONVILLE MUNI 47.70
ATLAS CONSTR 151.805
BP OIL 452.00 457.075
BAY AREA ASSOC 851.3875
BROADWAY MAINT 151.685 151.835
464.85 472.2875 477.4875
BROOKHAVEN NAT'L LABS 164.225
164.275 164.325 164.375 164.75
167.825 167.85 167.875 167.975
168.45 171.20 171.95 411.60
413.85 (FIRE 46.40 46.46
EMERGENCY 155.28 155.325
POLICE 155.985)
BROOKLYN UNION GAS 47.82 47.94
48.38 158.25 451.15 462.525
464.575
BUCKEYE PIPELINE 33.22
BUFFALO MUNI 153.695
BUSH TERMINAL 151.805
C&F POLLUTION CNTRL 43.48
CANTON ELEC LITE 153.71
CASE BORING CORP 47.52
CENTRL HUDSON G&E 48.06 48.12
48.24 153.515
CENTRL VT PUB SVC 37.56 37.68
CHAUTAUQUA-CATTRGUS ELEC 37.58
CHEVRON OIL 31.36 47.48
451.55
CITIES SVC OIL 451.85 464.5125
469.5125
COASTAL PETROL TRNSP 156.90
COLUMBIA GAS 48.28 153.65
COLUMBIA GAS TRNSMSN 33.38
COMBUSTION ENGINEERING 154.57
CONSOLID EDISON 33.14 42.98 47.74
153.41 153.59 153.725 154.57
451.025 451.05 451.075 451.10
451.125 451.475 451.575 478.9625
478.9875
(NUCLEAR PWR FACILITIES AT
INDIAN POINT USE 451.05 451.10)
CONSOLIDATED GAS 48.70
CONSOLID PETROL TERMNL 158.415
CORNING NATRL GAS 48.22
DUANE MARINE 150.98
DUNKIRK MUNI 158.25
ELMIRA MUNI 153.71
ENERGY TERMNL SVCS CORP 156.50
ENVIRNMNTL PROT AGCY (US) 164.45
EXXON OIL 33.36 151.685
152.245 158.385 451.975
565 CORP 153.08

FREEPORT MUNI 158.25
GENERAL ELECTRIC 3Ø.92 33.14 35.Ø2 151.655 151.8Ø5 151.925 151.955 153.Ø5 153.14 153.17 153.2Ø 153.28 153.32 153.35 154.54 154.57 157.62 158.31 461.Ø25 461.4Ø 461.525 461.625 461.65 461.7Ø 461.75 461.8Ø 461.875 462.15 462.225 462.275 462.35 462.5Ø 462.925 464.175 471.9875 851.2625 852.4375
GULF OIL 153.14
HAMILTON MUNI 47.8Ø
HANCOCK MUNI 173.25
HOOKER CHEMICALS 153.14 451.225
HOWLAND HOOK MARINE TERMNL 467.75 467.8Ø 467.85 467.9Ø 467.925
HUER UTIL CONTR 31.36
HUMBLE OIL 451.6Ø 451.7Ø 48Ø.5375
HUNTINGTON PORT 156.45 156.85
INDUSTRIAL REFINING 464.15
ITHACA MUNI 153.59
JAMESTOWN MUNI 153.41
JOHNSON MUNI 153.5Ø
LONG ISL LIGHTING 35.Ø2 37.46 37.62 153.44 153.545 153.68 154.57 154.6Ø 158.16 158.175 158.22 173.3Ø 451.625 451.675 464.675 467.8Ø (N E POWER GRID EMERG 47.86)
(NUCLEAR PWR FACILITY AT SHOREHAM USES 464.325 464.475 464.825 464.975)
LONG SAULT INC 153.47
MEENAN OIL 31.24 851.7875
MOBIL OIL 153.Ø95 153.38 154.57 451.175
MONROE MUNI 153.455
MORANIA OIL 452.175 463.4Ø 472.2625
MURRAY DRILLING 31.68 153.365
NASSAU CNTY UTIL 47.78
NAT'L FUEL GAS 37.86 47.78 47.94 48.14
NEW YORK CITY MUNI 37.5Ø 47.8Ø 47.96 48.Ø4
PORT 156.3Ø 156.9Ø 156.95 47Ø.8375
WATERFRONT COMMISSION 154.8Ø
NEW YORK STATE ELEC & GAS CORP 48.ØØ 48.Ø4 48.Ø8 48.3Ø 48.32 48.36 48.4Ø 467.75 467.8Ø 467.85 467.9Ø
ENVIRONMNTL ENF 159.225
PORTS 156.425 156.45 156.85
POWER AUTHORITY 47.74 47.78 48.54 153.635 451.1Ø 451.15
(NUCLEAR PWR FACILITY INDIAN PT #3 USES 153.56)
(NUCLEAR PWR FACILITY FITZPATRICK #1 AT SCRIBA USES 153.635)
NEWMONT EXPLORATION 153.Ø2
NIAGARA FRONTIER PORT 37.26 45.Ø8
NIAGARA MOHAWK PWR 47.78 47.8Ø 47.82 47.84 47.86 47.88 47.96 47.98 153.425 153.44 153.515 153.455 153.545 153.47 153.6Ø5 153.665 153.68 153.695 158.13 451.125 451.15 451.2Ø 451.375 451.575 467.75
(NUCLEAR PWR FACILITY 9 MILE PT AT SCRIBA USES 47.82 47.84)
N TONAWANDA MUNI 153.65
N E MARINE TERMNL 467.75 467.775 467.8Ø 467.825 467.875
NORTHVILLE DOCK/PIPELINE 42.98 451.65
NUCLEAR FUEL SVC 153.Ø5
OCEAN BCH VLG PORT 156.425 156.45
OCEAN TECHNOLOGY INC 151.625
OGDENSBURG PORT 16Ø.215 16Ø.725
ONEIDA MADISON ELEC 47.96
ORANGE & ROCKL UTIL 37.58 37.72 48.22 48.52 158.265
OTSEGO EC 158.19
PAVILION NATRL GAS 48.1Ø
PENINSULA PETROL 43.Ø2
PENN YAN MUNI 48.42
POLING OIL TRNSPT 156.45
PRODUCERS GAS 47.76
ROCHESTER G&E 33.14 35.Ø2 37.62 153.53 158.19 158.22 451.Ø25 451.Ø5 451.1Ø 451.25 467.75 467.8Ø 467.85 467.875 467.925
(NUCLEAR PWR FACILITY GINNA #1 AT ONTARIO USES 153.53)
ROCHESTER MUNI 153.41
ROCKVILLE CTRE MUNI 153.47
SPENTONBUSH OIL TRNSPT 156.95
STEUBEN REC 37.58 47.98
SUN OIL 47.48 151.535 151.895 461.Ø25 463.35
SUPERIOR FUEL 151.895
SYRACUSE MUNI 48.Ø2
SYRACUSE SUBURB GAS 153.56
TENNECO 48.66 153.335
TEXACO 158.31 451.425 451.55 451.775 451.95 454.ØØ 459.ØØ 464.825
TEXAS EASTERN 48.94
TITAN DRILLING 43.14
TONAWANDA MUNI 37.5Ø
TRW INC 153.Ø8
U S NATRL RESOURCES 3Ø.64
UTIL & INDUSTRIES 47.9Ø
WESTINGOUSE 153.Ø5 478.1125

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ALBERMARLE EMC 37.74
ALBERMARLE MUNI 153.56
AMOCO MUNI 35.94 456.275
ASHEVILLE MUNI 47.96 153.425
AYDEN MUNI 153.5Ø
BELMONT MUNI 153.68
BLUE RIDGE EMC 153.47 158.265
BRUNSWICK EMC 153.71
CAPE HATTERAS EMC 47.96
CAROLINA P&L 31.24 37.62 37.66 153.455 153.515 153.665 451.275 451.375 451.425 451.475 451.525 451.575 451.675 462.575
(NUCLEAR PWR FACILITIES BRUNSWICK #1 & 2 AT SOUTHPORT USE 37.62 153.515 153.665 462.475)
CARTERET CRAVEN EMC 48.26 153.425
CHARLOTTE-MECKLNBG UTIL 47.8Ø 48.16 48.42 153.635
CHEVRON OIL 451.75
COAST OIL 152.96
COASTAL SVC CORP 153.ØØ5
COLONIAL PIPELINE 49.4Ø
CONCORD MUNI 37.54
CRESC EMC 48.22 153.71
DAVIDSON EMC 158.19
DAVIE EMC 153.71
DIXIE PIPELINE 48.76
DOMESTIC ELEC 158.13
DUKE POWER 47.84 47.98 48.Ø8 48.12 48.32 158.13 451.Ø25 451.175 451.225
(NUCLEAR PWR FACILITY MCGUIRE #1 AT COWANS FORD DAM USES ABOVE FREQS)
EDEN MUNI 158.145
EDENTON MUNI 153.425 153.68
EDGECOMBE MARTIN EMC 158.25
ELIZABETH CITY MUNI 153.41
ENVIRNMNTL PROT AGCY (US) 164.1Ø 164.45
EXXON OIL 35.76 43.14 153.Ø5 153.Ø65 451.9Ø 452.175 463.9Ø
FAYETTEVILLE MUNI 153.65 173.25 451.25
FONTANA VLG MUNI 153.71
4 CNTY EMC 153.41
FRENCH BOARD EMC 158.25
GASTONIA MUNI 153.41
GENERAL ELECTRIC 153.Ø65 153.11 153.215 153.26 153.32 461.975 462.Ø0 462.125
GREENSBORO MUNI 153.44
GREENVILLE MUNI 47.8Ø 47.9Ø
HALIFAX EMC 153.59
HARKERS ISL EMC 37.46
HAYWOOD EMC 48.22
HENDERSONVILLE MUNI 153.68
HICKORY MUNI 158.13
HIGH POINT MUNI 451.Ø75 451.15 451.175 451.2Ø
HUMBLE OIL 35.76 451.9Ø 452.175
JONES ONSLOW EMC 158.68
KINGS MTN MUNI 158.22
KINSTON MUNI 47.74
LAGRANGE MUNI 37.52
LANDIS MUNI 173.35
LENOIR MUNI 153.53
LEXINGTON MUNI 158.145 158.235 451.525
LUMBEE RIV EMC 153.59
MADISON MUNI 153.575
MOBIL OIL 158.37
MONROE MUNI 451.15
MORGANTOWN MUNI 158.19
MOUNTAIN EC 48.2Ø
MURPHY MUNI 158.19
NANTHALA P&L 37.7Ø 158.16
N CAROL NATRL GAS 48.6Ø 158.16
N CAROLINA STATE ENVIRNMNTL 151.385 159.315
PORT AUTHORITY 156.45 156.9Ø
OUTER BANKS CONTR 35.2Ø
OUTER BANKS LTD 31.2Ø 157.74
PAMLICO CITY GAS 151.535
PAMLICO P&L 48.38
PEE DEE EMC 158.13
PEE DEE OIL 152.915
PENNA & STHN GAS 451.25
PIEDMONT EMC 158.16
PIEDMONT NATRL GAS 47.88 48.52 153.11 451.625
PITT/GREENE EMC 153.53
PLANTATION PIPELINE 49.16
PUB SVC OF N C 48.98 49.12 451.625
RANDOLPH EMC 158.25
ROANOKE EMC 451.125
ROCKY MT MUNI 153.71 451.Ø75
RUTHERFORD ELEC 37.78
SALISBURY MUNI 153.65
SANFORD MUNI 153.485
SHELBY MUNI 153.56
SMITHFIELD MUNI 173.35
S RIVER EMC 37.82
SINCLAIR OIL 35.14
SNEEDEN ENVIRNMNTL SVC 157.56
SUN OIL 47.64 152.87
SUNSET PK UTIL 37.56
SURRY YADKIN EMC 158.16
TARBORO MUNI 153.47
TENN VLY AUTH 4Ø.62 4Ø.74 166.655 169.425 169.475 17Ø.Ø5 171.825 171.85 171.9Ø
TIDELAND EMC 37.5Ø 153.62
TRANSCONTNTL GAS PIPELINE 48.74
TRI CNTY EMC 48.38
UNION CNTY UTIL 451.Ø75
UNION EMC 48.1Ø
UNION OIL 47.52
UNITED CITIES GAS 47.92
U OF N C UTIL 451.125
VA ELEC PWR 48.Ø4 48.14 48.28
WAKE EMC 153.62
WASH UTIL COMM 153.44
WESTINGHOUSE 35.Ø6 153.17 462.3Ø
WILMINGTON MUNI 153.44 451.1Ø
WILSON MUNI 158.19 451.1Ø
WINSTON SALEM MUNI 158.2Ø5
YADKIN INC 153.5Ø
ZAPATA CORP 158.28 158.31

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AMOCO 3Ø.92 48.66 451.55
AMERADA HESS 48.72
BAKER EC 48.Ø6
BASIN ELEC PWR 153.425 153.725 451.Ø25 451.Ø75 467.75 467.775 467.8Ø 467.85 467.9Ø 467.925
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CONOCO OIL 49.2Ø
COOPERATIVE PWR 157.56 158.235
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HOUSTON OIL/MINRLS 158.28
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K E M EC 153.44
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MC LEAN EC 153.71
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MINTER OIL FLD SVC 151.745
MONT-DAKOTA UTIL 48.26
MOR-GRAN-SOU EC 158.19
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MOUNTRAIL EC 48.38
N CENTRAL EC 48.46
NODAK REC 153.41 451.125
N DAK STATE ENVIRONMENTAL 122.925
NORTHERN STATES PWR 153.5Ø
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SHEYENNE VLY EC 37.82
SLOPE EC 153.53
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W PLAINS EC 48.46 462.475
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AMER ELEC PWR SVC 156.975 451.Ø75
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AMOCO OIL 151.895 456.275
APACHE DRILLING 49.1Ø
APPALACHIAN EXPLOR 49.5Ø
ARCO PIPELINE 48.84
ASHLAND OIL/REFINING 35.8Ø 43.Ø8 49.Ø6 451.55 451.7Ø 462.25
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BABCOCK & WILCOX 153.11 153.32 154.6Ø 158.43 464.675 466.5375 467.1125
BEACH CITY MUNI 153.455
BEAVER PETROL 31.44
BELMONT EC 37.54
BETHEL MUNI 153.575
BLANCHESTER MUNI 47.72
BOLTZ OIL FLD GRADING 3Ø.96
BOWLING GREEN MUNI 173.3Ø
BRYAN MUNI 153.41
BUCKEYE OIL PRODUCING 48.74
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CANTON MUNI 153.41
CANTON OIL WELL SVC 152.96
CAREY MUNI 153.455
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CENTRL OIL FLD SUPPLY 35.98
CENTRL OIL FLD SUPPLY/LOGAN 35.96
CHEVRON OIL 451.75
CINCINNATI MUNI 47.98 15Ø.995
CINCINNATI G&E 42.98 47.92 48.38 48.44 153.635 156.5Ø 158.145 158.235 173.25 173.35 451.25
CINCINNATI TERMNL WHSE 154.57
CLEVELAND ELEC ILLUMN 37.6Ø 47.86 48.ØØ 48.14 153.575 154.57 451.15 467.75 467.775 467.8Ø 467.825 467.9Ø
CLEVELAND MUNI 153.5Ø 153.725 158.16
CO-STAR OILFIELD SVC 49.Ø4
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COLUMBIA GAS 33.14 48.28 153.56 153.62 153.65 173.25
COLUMBIA GAS TRNSN 33.38
COLUMBIA L N G 33.8Ø 451.6Ø 451.75
COLUMBUS & STHN OH ELEC 47.78 47.88 153.5Ø 153.695 451.15
COLUMBUS MUNI 158.25 451.Ø25 451.Ø5
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CUYAHOGA FLS MUNI 153.47
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DEVCO OIL 153.275
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E OHIO GAS 37.5Ø 48.62 48.86 158.145 158.175 158.2Ø5 158.25 158.265 158.635
ECOL RESTORATION 3Ø.92
EDCO DRILLING 47.56
ENERGY INT'L CORP 152.915
ENERGY UNLTD 49.34
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ENVIRNMNTL PROT AGCY (US) 164.45 17Ø.125 182.3Ø
FIRELANDS EC 37.54
565 CORP 151.835
FRONTIER PWR 37.54
GALION MUNI 153.71
FENTON RIGGING 35.9Ø
GENERAL ELECTRIC 33.14 35.14 35.94 151.8Ø5 151.835 152.48 153.14 153.17 153.26 153.32 154.57 154.6Ø 158.31 461.2Ø 461.35 461.385 462.Ø25 462.Ø75 463.375 464.325 464.725
GRAHAMS PETROL MAINT 151.955 461.925
GRTR CINCINNATI HAZARD MATERIAL CONTROL 15Ø.585 15Ø.98 158.445 159.48
GUERNSEY PETROL 3Ø.78
GUERNSEY-MUSKNGM ELEC 37.54
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HALLIBURTON RESC MGT 47.44
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HAMILTON MUNI 153.71
HANCOCK WOOD EC 158.13
HB OPERATING CO 451.225
HILL DRILLING 33.34
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JJJ PETROL CONSTR 31.82
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LOGAN CNTY P&L 158.13
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MARATHON PIPELINE 48.58 49.58 158.355

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MICH-WISC PIPELINE 49.18
MID-VALLEY PIPELINE 158.43
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MIDWEST OIL/GAS 48.6Ø
MONONGAHELA PWR 37.72 37.76
MONTGOMERY CNTY UTIL 451.375
MORROW ELEC 37.54
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NEWARK MUNI 47.64 48.38
N CENTRL EC 158.13
N CENTRL NATRL GAS 33.36
N E NATRL GAS 33.36
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NORWALK MUNI 153.47
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OHIO EDISON 37.52 37.82 49.58 451.275
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OHIO GAS 153.59
OHIO POWER CO 35.94 37.48 37.5Ø 37.56 37.68 37.7Ø 153.68 467.775 467.8Ø 467.825 467.85
OHIO STATE ENVIRONMENTAL PORTS 31.34 31.46 156.6Ø 156.7Ø
OHIO STISON CO 37.82
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APCO OIL/PIPELINE 153.ØØ
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CIRCLE R OILFLD SVC 151.52
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CONOCO OIL 33.2Ø 33.22 33.38 49.ØØ 49.48 153.215 153.275 153.32 158.31 158.43 173.25 451.225 451.375 451.675 452.35 451.45 452.65 453.975 456.225 457.45 457.5Ø 46Ø.425 465.425
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CRC WESTERN WIRELINE 461.Ø5 461.Ø75 461.2Ø 461.4Ø 461.675 461.9Ø 461.95
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CULPEPPER OIL 153.14
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D&M WELL SVCING 35.84
DAVIS OILFLD CONTR 461.45
DEANS WELL SVC 31.32
DERRICK OIL/GAS 151.595
DORCHESTER GAS PRDCNG 463.425
DRUMRIGHT WELL SVC 152.945
DUNCAN MUNI 153.65
EASTERN OILWELL CEMNTRS 463.875
E CENTRL OKLA EC 158.175
EL DORADO OIL 35.84
EL PASO NATRL GAS 48.74
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FT COBB FUEL AUTH 47.72
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FREERSON OIL FLD 461.6Ø
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GRIFFIN OILWELL CEMNTNG 35.84
GULF OIL 43.Ø6 49.1Ø 49.24 151.655 153.23 153.35
HALL OIL 35.82
HALL WELL SVC 49.56
HALLIBURTON RESOURCE MGT 47.44
H&H PIPELINE CONTR 464.15
HANEY OIL 151.775
HARLOW CORP 49.46
HARMON ELEC 153.455
HARRISON DRILL 461.125
HEADLEE OIL 461.1Ø
HELMER & SELL WELL SVC 35.84
HEMPHILL CORP 48.7Ø
HENDERSON PIPELINE 464.Ø25
HICKMAN DRILLING 451.175
HOUCK OIL FLD SVC 461.875
HUDSON REFINING 153.365
HUGHES DRILLING 461.3Ø 463.275
HUMBLE OIL 451.55 561.7Ø
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IND POLLUTION CNTRL 461.7Ø
INDIAN EC 153.695
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JOHNSON CNTY EC 158.385
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KERR-MCGEE NUCLEAR 153.Ø8 462.275
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LILLAND CASING PULL 452.175
LINDSEY WELL SVC 153.Ø2
LOGAN DRILL 461.55
LOMANS DRILL 463.875
LONE STAR GAS 48.66
LOUISIANA RESOURCES 451.425
MACK OIL 37.2Ø
MAJORS DRILLING 151.55
M&K OILWELL CEMNTNG 461.725
MAPCO PRODUCTION 48.98 463.775 464.225
MARTIN RATHOLE DRILL 451.725
MCNEAL/SHAHAN OIL 463.825
MCVICKER OILFLD TUBULAR 461.Ø75 461.2Ø 461.25 461.9Ø
MIAMI MUNI 153.41
MICHAEL OIL 462.1Ø
MICH-WISC PIPELN 48.9Ø
MID CONT OILFLD SVC 461.225 461.575 461.9Ø
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MORGAN WELL EXCH 152.915
MORRIS OIL FLD SVC 462.ØØ
MORTON/POUND DRILLING 153.68
MUSKOGEE BULK TERMNL 151.895
MUSTANG MUNI 48.88
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N E OKLA EC 153.71
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N E OKLA PUB FACILITY AUTH 153.53
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N E EC 48.Ø6
NOVA DRILLING 461.Ø5
NUBS WELL SVC 152.915
ODELL HERRING WELL SVC 47.56
ODENWALD OIL/GAS 152.48
OIL FIELD RENTALS 461.85
OIL WELL CEMNTERS 3Ø.76
OKAR ENERGY 463.625
OKAN PIPELINE 49.Ø6
OKC PIPELINE 48.84
OKC REFINING 158.31
OKLA CITY METRO UTIL 153.65 153.59
OKLA EC 48.18 153.455
OKLA G&E 37.48 37.62 37.64 37.7Ø 37.72 37.74 37.78 37.82 158.13 451.Ø5 451.125
OKLA LIQ GAS 43.12
OKLA NATRL GAS 48.38 48.78 158.25 461.25
OKLA NITROGEN 462.2Ø 462.25
OKLA STATE ENVRNMNTL 44.64 44.84
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PACER OIL 451.825
PAN AMER PETROL 48.6Ø 456.75
P&D OILFLD SVC 49.56
P&P OILFLD SVC 151.775
PANHANDLE EASTERN PIPE 48.7Ø
PANOTEX PIPELINE 49.28
PARAMOUNT PIPELINE 42.96
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PETRO-LEWIS 49.Ø8
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PHILLIPS OIL/PIPELINE 33.38 42.96 42.98 48.72 48.9Ø 48.98 151.5Ø5 151.625 151.8Ø5 153.125 153.155 153.3Ø5 153.515 154.6Ø 158.31 158.37 158.415 451.225
PIONEER GAS 153.Ø5
PONCA CITY MUNI 158.13
PORTER DRILLING 461.85
POWER TRANSM/EQPT CO 151.54
PUB SVC CO OF OKLA 47.78 47.84 48.ØØ 48.Ø2 48.Ø8 48.28 48.32 48.42 151.8Ø5 158.2Ø5 451.15 451.25 451.8Ø
QUAD OIL 463.425
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RICKELSON OIL/GAS 49.36
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SKELLY OIL 35.76 151.685 158.43
SMITH OIL 31.16 151.685
SNYDER WELL SVCNG 463.2Ø 464.15
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SOUTHERN TANKS INC 153.575 159.495
SOUTHERN UNION GAS 47.78
SOUTHLAND DRILL/PRODCTN 153.665
S W PUB SVC CO 37.5Ø 37.58 451.Ø75 451.1Ø 451.25
S W REC 153.545
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SPRADLING ROTARY DRILL 43.28
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STICKLE DRILL 49.22
SUN OIL 35.86 48.68 49.Ø2 49.38 152.87 153.62 153.68 451.275 451.75
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TEXAS OIL/GAS 451.425 451.65
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TRANS OKLA PIPELINE 33.24
TRANSWESTERN PIPELINE 153.2Ø
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TULSA MUNI 153.47 PORT 156.45 156.55 156.6Ø
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VENTURE DRILLING 461.925 463.525
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WESTERN CRUDE OIL 49.28
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CALIF PACIF UTIL 48.Ø6 48.34 151.985
CASCADE COMMUNIC 48.5Ø 157.74
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CENTRL LINCLN UTIL 153.455 153.53 158.25
CENTRL SNAKE PROJ 169.1Ø 169.75 415.Ø75 419.875
CHEVRON OIL 451.55 451.675
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MULTNOMAH CNTY PORT 156.575 156.6Ø 156.85
N WASCO CNTY UTIL 153.5Ø
N W NATRL GAS 47.88 153.41 153.44 158.175 158.19 451.25
N W PIPELINE 48.86
OREGON STATE ENVIRNMNTL 151.16 151.175 151.2Ø5 158.895
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PACIF GAS 48.82
PACIF P&L 37.4Ø 37.58 37.74 153.59 153.62 158.13
PIPELINE UTIL 157.68
PORTLAND GEN ELEC 48.Ø6 48.46 153.47 153.575 153.68 154.57 451.Ø25 451.125
(NUCLEAR PWR FACILITY TROJAN #1 AT PRESCOTT USES 48.Ø6 48.46 153.575)
PORTLAND
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ARCO PETROL 31.64 153.35 451.65 451.725 451.75 454.ØØ 461.9Ø 463.9Ø 464.15 464.475
ARCO PIPELINE 48.86 464.2625 464.475 464.6375 469.2625 469.3625
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COLSOLID GAS SUPPLY 48.7Ø
COOPER ENERGY SVCS 151.865 153.335
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(NUCLEAR PWR FACILITY AT SHIPPINGPORT ON 164.225)
DERRY MUNI 153.6Ø5
DUQUESNE LIGHT CO 48.3Ø 48.32 48.42 151.655 153.47 154.6Ø
(NUCLEAR PWR FACILITY BEAVER VLY #1 AT SHIPPINGPORT ON 48.3Ø 153.47)
E COAST POLLUTN CNTRL 463.95
ELK OIL 49.Ø2
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ENERGY SVC ASSOC 151.5Ø5
ENVRNMTL PROT AGCY (US) 164.45 165.41
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ERIE MUNI 153.59
EXXON OIL 153.14 451.975 461.1Ø
565 CORP 49.Ø6 153.14
GEER OIL 33.32
GENERAL ELECTRIC 151.715 151.895 151.955 153.11 153.14 153.2Ø 153.23 153.335 154.6Ø 158.31 461.125 461.275 462.25 463.35 467.225 851.7625
GETTY OIL 154.6Ø
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HALLIBURTON RESOURCE MGT 47.44
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LOUDEN PROPERTIES 48.8Ø
LWR BUCKS JNT MUNI 153.515
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METRO EDISON 37.5Ø 37.52 37.54 37.56 451.1Ø 451.125
(NUCLEAR PWR FACILITY SITE TMI 1 AT MIDDLETOWN USES 37.5Ø 37.52 37.54 37.56 451.125)
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N E NATRL GAS 33.36
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PA ELECTRIC 48.36 48.4Ø 48.46 48.48 153.47 153.53 154.6Ø 451.175
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PA GAS/WATER CO 47.76 47.8Ø 47.84 47.98
PA POWER CO 47.78 451.275
PA PWR & LITE 37.46 37.48 37.62 37.66 37.7Ø 37.74 37.82 37.86 151.865 151.925 153.515 154.57 154.6Ø 451.2Ø
PA UTIL INVSTMNT CORP 451.15
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PORTS 156.45 156.525 156.7Ø 156.85
PENNZOIL 35.1Ø 35.9Ø 49.Ø4 151.835 153.125 462.4Ø
PEOPLES NATRL GAS 37.62 48.7Ø 153.725 158.19
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PHILA ELECTRIC 37.64 37.68 37.78 37.8Ø 37.86 47.9Ø 48.ØØ 48.26 48.32 451.Ø25 451.Ø75 451.125 451.2Ø 451.625 467.75 467.8Ø 467.85 467.9Ø
(NUCLEAR PWR FACILITIES AT PEACH BOTTOM ON 37.64 37.78 451.Ø75)
PHILA MUNI 153.41 153.56 173.25 173.3Ø 173.35 451.25
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PITTSB MUNI 47.92
PLEASANTV INDSTRL OIL/GAS 463.7Ø
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SOHIO PETROL 451.225 451.55 451.7Ø
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S W CENTRL REC 37.78
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SUN OIL 3Ø.84 33.14 33.4Ø 35.Ø2 35.74 35.98 43.44 48.62 49.34 151.625 151.775 153.17 153.38 154.6Ø 158.22 451.6Ø 451.675 451.825 462.225 462.375 462.45 466.Ø25 467.625 467.75 467.8Ø
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U S FUEL OIL 152.975
U S UTIL SVC CORP 463.85
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W PA PWR 47.9Ø 48.Ø2 48.Ø8 48.1Ø 451.475
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W VIEW MUNI 153.545
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ALGONQ L N G 463.2125 468.2125
AMOCO OIL 156.35 156.9Ø 456.275
BLACKSTN VLY ELEC 37.7Ø
BRISTOL/WARREN GAS 153.665
BROCKTON EDISON 153.575 153.65 153.65
ENVRNMTL PROT AGCY (US) 164.45 156.41
EXXON OIL 33.36 156.45
GENERAL ELECTRIC 151.925 153.17
GETTY REFINING 451.6Ø
HOUSTON OIL/MINERALS 156.45
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N E PETROL TERMNLS 153.Ø95 158.295
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CAROLINA P&L 37.62 451.275 451.425 451.525 451.575 451.675
(NUCLEAR PWR FACILITY ROBINSON #2 AT HARTSVILLE USES 37.62 451.275 462.475)
CHARLESTON MUNI 37.5Ø
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CLINTON NEWBERRY NATRL GAS 158.16
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COLUMBIA MUNI 153.485 158.265
DIXIE PIPELINE 48.76
DUKE POWER 47.64 47.84 47.94 47.98 48.Ø8 48.12 48.32 451.Ø25 451.225
(NUCLEAR PWR FACILITIES OCONEE 1-2-3 AT SENECA USE 47.98 48.12 451.2Ø 451.25)
EDISTO EC 47.78
ENVIRONM ANALYTICS 461.85
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EXXON OIL 35.76 151.835 152.87 153.32
FAIRFIELD OIL 153.65
FLORENCE MUNI 153.47
GAFFNEY UTIL 153.455 153.5Ø
GENERAL ELECTRIC 153.11 153.155 153.26 153.275 153.32 157.69 157.74 158.28 158.415 461.875 462.125
GREENWOOD MUNI 153.41
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SO CAROLINA PUB SVC AUTH 47.9Ø 451.Ø25 451.Ø75 451.15 451.275 451.375 451.425
SO CAROLINA STATE
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PORTS 156.425 156.45 156.6Ø
S E POWER ADMIN 4Ø.47 122.925 155.34 156.21 159.45 163.6Ø 163.61 163.75 163.79 163.795 163.8Ø 163.82 163.84 163.86 163.88 163.9Ø 163.92 163.94 163.96 164.ØØ 164.225 164.275 164.325 164.375 164.75 165.26 167.825 167.85 167.875 167.925 167.975 168.45 169.6Ø 171.2Ø 171.95 173.ØØ 41Ø.35
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BLACK HILLS P&L 47.7Ø 47.78 47.84 47.9Ø 451.Ø5 451.25
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N W PUB SVC 37.58
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SPINK EC 48.3Ø
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(NUCLEAR PWR FACILITY SEQUOYAH #1 AT DAISY USES 172.Ø25 173.Ø5 4Ø6.125 4Ø8.575 411.7Ø 412.125 412.225 412.625 417.975)
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COASTAL STATES GAS 48.56 48.68 48.92 158.31 451.525
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TEX OIL/GAS 48.8Ø 49.ØØ
153.Ø8 153.Ø95 153.425 158.145
158.175 451.7Ø
TEX PIPELINE 153.11 153.29
173.35
TEX P&L 37.46 37.5Ø 37.54
TEX PRODUCTION CO 49.52
TEX S E GAS 49.Ø8
TEX STATE
ENVIRONMENTAL 31.22 47.Ø6 47.18
151.415 159.27
PORTS 156.65
TEX UTIL CONTR 483.4375
TEX UTIL FUEL 48.92
TEX UTIL GENERAT 451.175 451.875
451.975 463.45 463.55
TEXLAND DRILL 461.275 461.3Ø
461.325
THOMPSON OIL 49.48
THOMAS OIL 152.87
THOMAS-MILFRD OILWELL CEMENTNG
35.82
3-8 OIL 48.84
THORNBERRY OILFLD SVC 151.52
TIDAL CONSTRCT 461.475
TIDE L-P-G 43.ØØ
TIPPERARY CORP 153.275 451.775
TITSWORTH PIPELN CONTR 49.54
TL DRILLING 173.25
TOM BROWN DRILL 3Ø.82
TOM SWANSON 48.76
TORREON DRIL 451.475
TP WELL SVC 464.Ø25 464.225
TRANS GAS PIPELN 453.825
TRANSCONT'L GAS PIPELN 48.74
49.48 451.6Ø
TRANSOCEAN OIL 49.26 153.32
TRANSTEX OILFLD SVC 151.925
TRANSTEX PETROL 484.1375
TRANSWESTERN PIPEL 153.2Ø
TRI CNTY EC 37.74
TRINITY GAS 153.3Ø5
TRIPLE H WELL SVC 33.24
TRIPLEHORN OIL 48.58
TRINITY RIV AUTH 47.84 47.96
TROY ROGERS DRIL 35.8Ø
TRUNKLINE GAS 48.8Ø 49.Ø2
456.525
TRW INC 153.35 462.275
TUCKER DRILLING 153.Ø95
UNION CARBIDE 151.625 151.895
151.925 153.14 153.2Ø 154.54
154.57 154.6Ø 158.28 158.415
451.375 451.475 46Ø.775 46Ø.9Ø
463.9Ø

UNION OIL 33.16 33.32 33.34 48.72 49.22 156.5ø 156.7ø 451.675 461.8375 462.8ø
UNION PRODUCING 49.ø4
UNITED DRILL 49.26
UNITED GAS 153.41 153.695 153.725 158.19
UNITED GAS PIPELN 48.78 451.625
UNITED OILWELL CEMNT 47.64
UNITED RIG 35.74
UNIVERSAL ELEC CONSTR 35.28
UNO TEX PETROL 49.øø 153.ø8 156.95
UPSHUR REC 153.53 158.25
UTIL PIPELN 153.515
VJL CORP 153.38
VERNA DRIL 49.42 461.45
VESSEL OPNS 156.9ø
VESTAL WELL SVC 31.92
VICTORIA EC 153.425
VINSON/CLARK OIL 49.ø6
VIRDELL BORS DRIL 35.48
VIRGIL TAYLOR DRIL 48.62
WACO MUNI 153.59
WARD EXPLOR 3ø.66 3ø.82
WARREN PETROL 33.26 153.35
WARTON DRILL 451.375
W D JONES DRIL 49.54
W D OILFLD SVC 35.12
W D VESTAL OIL 49.44
WEAVER OPER CO 173.25
WECO DEVELOP 48.8ø
WELCO INC 153.275
WELLTECH 35.86 48.96 49.54 49.56
WELSH DRIL 48.96
WELTECH INC 48.96
W E ROWE OIL 49.38
WES MOR DRIL 49.34 49.5ø
W COAST ELECTRONICS 153.ø5 153.ø8 153.11 153.17 153.2ø 153.23 153.29 153.32 153.35 158.31 158.37 158.43 451.55 451.6ø 451.65 451.7ø 451.75 456.55 456.6ø 456.65 456.7ø 456.75 WESTERN ENVRNMNTL SVC 463.275
W FARMERS EC 37.66
WESTERN GAS 158.325
WESTERN PUB SVC 35.7ø
WESTERN TRNSMSN 153.125 153.395
WES TEX DRILL 49.34 49.5ø
W HOBBS & SONS OILFLD SVC 463.6ø 463.65 153.185
W TX GAS 153.725
W TX GATHERING 451.175
W TX UTIL CO 37.74 37.8ø
WESTINGHOUSE 151.685 153.ø65
WESTWIND GAS 151.715
WGA DRILL 49.46
WHARTON CNTY EC 153.65
WICHITA FLS MUNI 153.59
WILDCAT OILFLD CONSTR 43.ø6
WILLACY CNTY NAVIG DIST 156.45 156.6ø
WILLIAMS OILFLD 35.74
WILLIS DARWIN OIL 33.18
WILMETH OIL 43.ø8
WILSON CONSERV SVC 152.96
WINDSOR GAS 451.725
WINTERGARDEN GAS 151.745 153.ø95
WISE ELEC COOP 48.28
W L KIDD OILFLD SVC 44.38
W L PENNINGTON OILFLD OP 153.2ø
WOLF DRIL 43.1ø
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YALE KEY OILWELL SVC 151.595
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ZAPATA HAYMIE CORP 153.335

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AMER GILSONITE 153.11
AMOCO OIL 47.56 152.915 153.17
ATLAS RESOURCES 461.ø75
BLACK OIL CO 461.975
BOUNTIFUL MUNI 47.78
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CALIF PACIF UTIL 48.26
BUTTES GAS/OIL 461.325
CHEVRON OIL 122.9 152.99 153.ø65 451.55
COLO-UT ELEC 37.5ø
CONOCO 49.øø
EL PASO NATRL GAS 48.74 451.875 456.875
ENERGY FUELS NUCLEAR 463.6ø 468.2ø
ENERGY URANIUM 151.535
ENVIRNMNTL SCI/ENGN 151.745
ENVIROTECH 153.35
ESCALANTE VLY ELEC 153.56
FLOWELL EC 451.25
FLYING DIAMOND OIL 158ø.98 153.ø95
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GENERAL ELECTRIC 461.ø25
GETTY OIL 152.99
GULF OIL 49.1ø
HALLIBURTON RESOURCE MGT 47.44
HUSKY OIL 153.275
JENNINGS PETROL 461.725
KNUDSEN GAS/OIL 151.535
KOCH INDUSTR 49.4ø
LOS ANGELES CA MUNI 153.47
LA SAL OIL 464.725
M&M OILFLD SVC 49.56
MAPCO 153.125 158.295
MOON LAKE ELEC 153.41
MOSS DRILLING 464.375
MTN FUEL SUPPLY 48.ø2 48.24 48.72 48.82 158.13 158.19 158.25 451.2ø 451.65
MT WHEELER PWR 153.44
MURRAY MUNI 153.47
NAVAJO TRIBE UTIL 153.65
N W PIPELINE 48.86
OGDEN MUNI 153.41
OIL FLD SVC CO 47.52
PHILLIPS PETROL 48.96 158.31
RESERVE OIL 153.185
SALK LK CITY MUNI 48.1ø 451.ø5
SEARLE GAS 464.75
SHELL OIL 48.58 48.78 49.ø6
STARRETT OIL/GAS 153.38
SUPERIOR OIL 153.29 153.37
TEXACO 48.94
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UTAH P&L 48.42 153.5ø 153.545 153.56 153.62 153.68 153.71 451.ø75 451.15
UTAH STATE ENVRNMNTL 159.24 159.285
UT STATE UNIV WATER RESCRCH 155.8ø5
WESTERN NUCLEAR 463.2ø
WESTERN PETROL 157.68 464.4ø
WESTINGHOUSE 462.325 469.225

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AMOCO OIL 456.275
BARTON MUNI 48.øø
BURLINGTON MUNI 48.14
C P SMITH PETROL 153.17
CALEDINIA GAS 158.46
CENTRL VT PUB SVC 37.56 37.68 451.125
CITIZENS UTIL 48.46
GENERAL ELECTRIC 152.3ø 153.ø5 153.2ø 462.375
GREEN MTN PWR 48.54
HALIFAX EC 48.26
LYNDONVILLE MUNI 48.ø6
MORRISVILLE MUNI 158.19
NEW ENGL PWR SVC 47.ø8 47.88 47.96 48.12 48.42 48.48 48.5ø 451.15
ORLEANS P&L 48.øø
PUB SVC OF NH 153.515
ROCHESTER ELEC P&L 37.68
VERMONT EC 153.665 153.725 158.175
VERMONT ELEC PWR 37.54 37.6ø 47.62
VT GAS SYST 37.64
VT STATE ENVRNMNTL 151.19
VT YANKEE NUCLEAR PWR FACILITY AT VERNON USES 37.76
WASH EC 48.52

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ACCOMACK NORTHAMPTN EC 48.38
ALLEGHANY GAS 35.44
AMOCO OIL 156.3ø 156.45 156.5ø 156.55 156.6ø 156.9ø 158.325 158.37 456.275 464.5375 464.7375 464.9375 469.9375 469.5375 469.7375 469.9375
APPALACHAIN PWR 31.2ø 37.48 37.5ø 37.56 37.58 37.64 37.66 37.68 37.7ø 37.74 37.8ø 151.835 451.ø75 456.ø75
ASHLAND OIL/REFINING 49.54
BABCOCK & WILCOX 153.23 157.74 451.8ø
BARC EC 48.38
BRISTOL UTIL BRD 47.74
BROWN & ROOT 151.49
CENTRL VA EC 37.46
CHEVRON OIL 451.75
CITIES SVC OIL 47.44
CITIZENS GAS 153.425
COLONIAL NATRL GAS 48.72
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COLUMBIA GAS OF VA 153.5ø
COLUMBIA GAS TRNSMSN 33.38
COMMONWEALTH GAS [illegible]TRIB 153.ø3 153.ø5
COMMONWEALTH NATRL GAS 158.43
COMMUNITY EC 153.71
CONOCO 451.375
CRAIG BOTETOURT EC 153.53
DANVILLE MUNI 153.41 153.485
DELMARVA P&L 48.24 48.3ø
DELTA OIL SALES 154.49
DIST COLUMBIA GOV'T 158.13
CHESAPEAKE CITY PORT 156.65
DONALDSON TETROL POD 3ø.58
E TENN NATRL GAS 48.58
ECOSCIENCE 151.625
EXXON 154.6ø 156.45 451.9ø
565 CORP 47.52
GENERAL ELECTRIC 35.ø4 151.625 151.655 151.685 151.865 153.ø8 153.32 154.54 154.6ø 158.31 461.2ø 461.425 461.45 461.525 461.65 461.725 462.ø75 462.3ø 462.45 464.1ø 464.5ø 464.55 467.15
GEOLOG CONSLT SVC 158.385
HARRISONBRG MUNI 153.41
KERR MCGEE CHEM 47.52
LAKE OF WOODS UTIL 153.62
MECKLINBURG EC 153.65
MOBIL OIL 158.37
NATRL GAS CO OF VA 463.425
NEWPORT NEWS MUNI 451.1ø 451.25
NORFOLK PORT 154.785 156.øø 453.925 453.95 453.975
NORFOLK TERMINAL 453.925 453.95 453.975
NORTHN NECK EC 153.59
NORTHN PIEDMONT EC 153.41
NUCLEAR REGL COMMSN (US) 168.45 416.4ø
OLD DOMINION PWR 48.3ø
PHILLIPS PETROL 158.415
PLANTATION PIPELN 49.16
PORTSMOUTH GAS 48.18
PORTSMOUTH MUNI 153.47 158.16
POTOMAC EDISON 158.16 158.2ø5 158.25 158.265
POTOMAC ELEC PWR 37.58 37.66 37.82 451.ø25 451.ø5 451.ø75 451.125 451.15 451.25
POWELL VLY EC 153.59
PR GEORGE EC 158.25
RICHARDSON WAYLND EC 31.68
RICHMOND MUNI 158.13
ROANOKE GAS 153.59
ROANOKE MUNI 158.25
SHENANDOAH GAS 48.2ø
SHENANDOAH VLY EC 158.13
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SOUTHSIDE EC 37.78
S W VA GAS 48.44
SUN OIL 35.78 152.96
TENN VLY AUTH 166.655 169.45 171.875 171.925
TEXACO 154.515
TRANSCONTL GAS PIPELN 48.74 158.37
TRI-CNTY EC 158.19
UNDERGRND CABLE CONSTR 462.øø
UNION OIL 47.52 158.37
VA BEACH MUNI 153.515 153.575
VA EC 158.19
VA ELEC & PWR 48.ø4 48.14 48.26 48.28 48.34 48.42 48.5ø 153.485 156.45 451.ø25 451.ø5 451.125 451.15 451.175 451.375 451.425 (NUCLEAR PWR FACILITIES N ANNA 1 & 2 AT MINERAL USE 451.ø5 451.125) (NUCLEAR PWR FACILITIES SURRY 1 & 2 AT GRAVEL NECK USE 48.ø4 48.14 451.ø5 451.125)
VA GAS DISTRIB 451.15
VA PIPELINE 153.425
VA STATE ENVIRNMNTL 159.935
PORTS 156.55 156.575 156.85
VA UTIL CONSTR 452.125
WASH GAS LITE CO 47.9ø 451.2ø
WESTINGHOUSE 153.17 495.9125
ZAPATA HAYNIE 158.28 158.31

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AMOCO OIL 151.745 451.275
ARCO OIL 462.475 463.2125 463.3375 463.6875 463.8875 464.925 468.2125 468.3375 468.3875 468.6875 468.8875
ASTEC PETROL SPECLTIES 463.775
BASIN OIL 151.535
BELLINGHAM PORT 45.ø8 156.425 156.45
BENTON CNTY PUB UTIL 153.47 153.53 153.725
BENTON REC 153.53
BIG BEND EC 37.58
BONNEVILLE PWR ADMIN 172.525 411.85 417.25 (EMERG 172.5ø)
BOOKEY BUCKLIN PETROL PRODUCTS 152.99
CASCADE NATRL GAS 48.5ø
CENTRALIA MUNI 153.53 158.19
CHELAN CNTY UTIL 48.øø 48.34 153.41 153.6ø5 451.ø5 451.15
CHEM-NUCLEAR SYST 151.955
CHEVRON OIL 158.37 451.55 464.2ø
CHIEF JOSEPH PROJ 166.3ø
CLALLAM CNTY UTIL 48.1ø
CLARK CNTY UTIL 153.6ø5 158.13 451.ø75
COEUR DALENE UTIL SVC 452.175
COLUMBIA BASIN PROJ 169.4ø 17ø.ø25 17ø.øø 17ø.6ø
COLUMBIA REC 48.52
COWLITZ CNTY UTIL 153.65 153.725
CROWLEY ENVRNMNTL SVC 454.øø 459.øø
DEPT OF ENERGY (US) 162.595 164.øø 164.25 164.325 164.375 164.4ø 164.525 164.75 165.8ø 166.66 167.825 167.925 167.975 168.225 168.3ø 168.325 168.45 169.5ø 169.725 171.825 172.575 4ø6.125 4ø6.225 4ø7.ø25 4ø7.175 4ø8.ø25 4ø8.425 4ø8.525 4ø8.55 4ø8.775 41ø.35 411.15 411.2ø 411.65 411.675 412.ø5 412.125 412.225 412.3ø 413.825 413.95 414.975 416.ø25 416.ø5 416.ø75 416.4ø 416.5ø 416.675 417.375 417.45 417.525 417.65 417.725 417.825 (NUCLEAR PWR FACILITY AT RICHLAND USES 164.225 167.875 17ø.575 171.2ø 171.95 173.1ø 41ø.8ø 411.ø25 412.75 413.8ø 413.85 416.3ø 416.35 417.25)
DOUGLAS CNTY UTIL 153.5ø 153.68
EDMONDS MUNI 158.925

ELMHURST MUT P&L 48.28
ELMORE BOOM CO 48.28 48.58
EL PASO NATRL GAS 451.6Ø
ENVIRNMNTL SPEC 464.1Ø
EVERETT MUNI 451.2Ø
EXXON 158.28 461.975
FERRY CNTY UTIL 153.56
FRANKLIN CNTY UTIL 47.86 451.25
GENERAL ELECTRIC 151.625 461.Ø25 461.5Ø 463.45 463.475
GRAND COULEE PROJ 163.885 164.475 169.55 17Ø.Ø5 4Ø6.475
GRANT CNTY UTIL #2 158.13 451.2Ø
GRAYS HARBR CNTY UTIL 48.26
INLAND P&L 37.66
INTERMNTN GAS 158.16
KING CNTY UTIL 48.22 158.19
KITTITAS UTIL 47.94
KLICKITAT CNTY UTIL 158.25
KOOTENAI EC 37.54
LAKEVIEW L&P 153.47
LEWIS CNTY UTIL 37.58 48.Ø6 153.65
LINCOLN EC 153.65
LOVELAND MUTUAL CORP 47.82
MASON CNTY UTIL 47.86
MOBIL OIL 151.8Ø5 173.3Ø 451.425 451.55 451.625 469.825
MODERN ELEC WATER 158.19
N W NATRL GAS 47.88 153.41 153.44 158.19 451.25 456.25
N W PIPELINE 48.86 451.375
OHOP MUTUAL LITE 48.54
OKANOGAN CNTY UTIL 153.47
OKANOGAN CNTY EC 153.575
ORCAS P&L 47.74 48.36
OROVILLE/TONASKET MUNI 48.16
PACIF CNTY UTIL 47.94 47.94 48.44
PACIF GAS 48.82
PACIF P&L 153.59
PARKLAND LITE/WATER 451.1Ø
PEND ORIELLE UTIL 48.26
PENINSULA LIGHT CO 47.78
PETROLANE LIQ GAS 461.475
PETROLANE WASH GAS 463.6Ø
PETROL PUMP CO 461.375
PORTLAND GEN ELEC 48.Ø6 48.46
PUGET SND P&L 153.41 153.44 153.545 153.62 154.57 158.13 451.Ø5
SEATTLE MUNI 37.48 37.58 48.4Ø 153.725 451.15
SEATTLE PORT AUTH 155.715 156.5Ø 156.9Ø 451.575 462.675 462.725 451.575 453.3Ø 453.375 453.5Ø
SEATTLE P&L 456.Ø75
SHELL OIL 35.74 47.6Ø 151.535 151.595 451.6Ø 454.ØØ
SKAMANIA CNTY UTIL 49.Ø2
SNOHOMISH CNTY UTIL 153.53 153.665 153.725
SOUND REFINING 456.425
SPOKANE MUNI 153.59
STANDARD OIL 47.44 451.55
SUN OIL 461.4Ø
TACOMA MUNI 48.Ø2 153.71 158.25 451.125
TACOMA PORT 156.425 156.9Ø
TANNER ELEC 47.96
TAYLOR UTIL CONSTR 461.7Ø
TEXACO 153.38 156.5Ø 156.9Ø 462.725
UNIVERSAL UTIL CONTR 464.35
UTIL DEVELOP 47.56
VANCOUVER MUNI 462,475
VANCOUVER PORT 156.425 156.9Ø
WANKIAKUM CNTY UTIL 37.54
WASH NATRL GAS 48.14 48.16 48.18 48.2Ø 48.24
WASH PUB PWR SUPPLY 153.5Ø 451.Ø25 451.Ø75 451.15 451.2Ø 456.295 467.75 467.775 467.8Ø 467.825 467.85 467.875 467.9Ø 467.925
WASH STATE
ENVIRNMNTL 151.28
FISHERIES 156.975
PORTS 156.425 156.975
WASH WATER/PWR 48.42 153.455 153.71
WESTINGHOUSE 151.625 466.8Ø
YAKIMA PROJECT 164.475 164.985 4Ø7.Ø25 415.Ø75 416.475 419.875

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ALLEGHENY LAND/MINRL 49.14
ALLEGHENY NUCLEAR SURVYS 31.6Ø
ALLEGHENY PWR SVC 451.Ø75 451.475
AMER ELEC PWR SVC 156.975 451.Ø25 462.7Ø
AMOCO OIL 456.525
APOLLO PETROL 33.32
APPALACHAIN PWR 31.2Ø 37.48 37.5Ø 37.56 37.58 37.64 37.66 37.68 37.7Ø 37.74 37.8Ø 451.Ø75 467.75 467.775 467.8Ø 467.825 467.85 467.875
ASHLAND OIL 451.525
BASIN PETROL 33.3Ø
BASIN SURVEY 33.18
BAYCHEM EXPORT 153.Ø65
BERRY ENERGY CONSLT 35.92
CABOT CORP 37.82
CARNEGIE NATRL GAS 49.16
CITIES SVC OIL 33.36
CLAYWOOD LK PUB SVC 451.125
COLUMBIA GAS SYS 153.53 153.65 153.71
COLUMBIA GAS TRNSMSN 33.38 158,235 451.7Ø
CONSOL GAS SUPPLY 48.7Ø 48.8Ø 158.175 158.19
CONSUMER GAS UTIL 48.36 153.485
CUMBERL/ALLEGH GAS 153.65 153.71
DAVIS PETROL 31.92
DELAWARE GAS 33.26
DEVON CORP 49.32
DUNCAN BROD DRILL 151.535
ENERGY DEVELPMNT CORP 452.ØØ
EQUITABLE GAS 47.84 48.22 153.41
EUREKA PIPELINE 48.82
EXXON 451.9Ø 46Ø.9875 465.9875
565 CORP 49.Ø6 451.225
FOSSIL PETROL 48.62
FOX PIPELINE 3Ø.66
FWA DRILLING 33.2Ø
GENERAL ELECTRIC 151.835 151.865
H&H DRILLING 49.46
HALLIBURTON RESOURCE MGT 47.44
HAMPSHIRE GAS 47.88
HARRISON REC 47.82
HARTMAN OIL/GAS 42.96
INDUSTR GAS 49.Ø2
JACKSON DRILL 33.3Ø
LOGAN GAS 49.44
MANUFRS LITE/HEAT 153.65 153.71
MONONGAHELA PWR 37.72 37.76 37.86 43.ØØ
MORRIS DRILL 35.Ø6
OHIO PWR CO 37.7Ø
PATRICK PETROL 48.84 452.3Ø
RENNZOIL 49.Ø4
PETRO-LEWIS 33.3Ø
POTOMAC EDISON 158.16 158.2Ø5
PRESTON CNTY L&P 48.26
PRESTON ENERGY 43.14
PRESTON OIL 33.38
QUAKER STATE OIL REF 153.Ø8 462.175 462.425
RAVENCLIFFS DEVEL 48.9Ø
RAY RESOURCES 33.22
ROCKWELL PETROL 48.76
SCOTT OIL/GAS 49.38
SENECA UPSHUR PETROL 48.64
SHAFER PIPELINE 47.64
SPENCER ENTERPR 49.44
STONESTREET LANDS 49.1Ø
TENNECO 48.66 451.55
TRI STATE DRILL 43.32 48.92
UNION CARBIDE 3Ø.74 43.1Ø 151.655 151.775 151.8Ø5 153.Ø5 153.Ø8 153.14 153.2Ø 153.32 153.35 154.6Ø 157.74 158.31 158.43 461.Ø75 462.75 464.Ø125 464.1125 464.2125 464.3875 467.225 467.75 467.8625 467.9375
UNION DRILL 33.18 33.26
UNION OIL/GAS 48.58 158.37
UNITED FUEL/GAS 451.55
VA ELEC & PWR 48.14 48.28
WV PIPELINE 35.28 452.275
WV STATE ENVRNMNTL 31.82 31.86 31.98
WESTRANS PETROL 49.48
WHEELING ELEC 37.58 37.64 37.7Ø 37.74
WHITE SHIELD OIL/GAS 33.3Ø

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ADAMS MARQUETTE ELEC 158.25
ALLIS CHALMERS 151.895 153.17 157.74
AMER GAS 153.41
AMOCO OIL 151.715 151.835 456.275 456.375
BABCOCK & WILCOX 153.23 462.3Ø
BARRON ELEC 451.225
BAYFIELD EC 47.9Ø 451.675
BRODHEAD MUNI 153.515
BUFFALO EC 37.62
CENTRAL WI EC 37.62 451.525
CHIPPEWA VLY ELEC 37.62
CITIES SVC OIL 35.12 152.96
CLARK EC 37.62 37.72
CLARK OIL/REFIN 151.595
COLUMBUS REC 158.175
CONOCO 153.3Ø5
CRAWFORD EC 37.62 451.525 456.525
DAHLBERG L&P 48.5Ø
DAIRYLAND PWR COOP 37.52 37.62 153.56 153.71 158.16 451.Ø25 451.Ø5
(NUCLEAR PWR FACILITY GENOA STA AT LACROSSE USES 37.52 37.62)
DUNN CNTY EC 37.62
EAU CLAIRE EC 451.125
ENVIRNM SYST INC 151.865
FLORENCE WATER/LITE 153.59
FOND DU LAC PORT 156.425 156.45
GENERAL ELECTRIC 153.Ø65 153.2Ø 153.32 154.54 451.1Ø 461.275 461.7Ø
GRANT EC 37.62
GREEN BAY MUNI 153.71
HASKINS G&E 47.64
HEAD OF LAKES EC 158.25
JACKSON EC 37.62
JUMP RIVER EC 451.525
KAUKAUNA MUNI 153.56 153.65
LACROSSE PORT 156.45
LAFAYETTE EC 37.62
LK SUPERIOR DIST PWR 48.3Ø 453.325
LK SUPERIOR TERMNL 16Ø.74
MADISON G&E 153.47 153.665
MANITOWOC PUB UTIL 158.235
MENASHA UTIL 153.56
MARATHON OIL 151.715
MICHELS PIPELN CONSTR 151.5Ø5 152.93
MICH-WISC PIPELN 48.5Ø 48.9Ø
MIDWESTRN GAS TRNSMSN 48.68
MILW LIQ LKS TERMNL 151.625
MILWAUKEE
MUNI 153.59
PORT 156.5Ø 156.6Ø
MOBIL OIL 153.11
N CENTRL PUB SVC 48.4Ø
N CENTRL PWR 48.5Ø
NORTHERN NATRL GAS 33.18
NORTHN STATES PWR 153.455 153.5Ø 158.2Ø5 158.22 451.125
N W WISC ELEC 48.5Ø
OAKDALE ELEC ASSN 37.62
OAKDALE EC 451.225
OCONTO ELEC 158.25
PIERCE PEPIN EC 37.62
PIONEER P&L 47.82
PIPELN SVC CO 48.82
POLK BURNETT EC 37.62 451.425
PRICE EC 37.62 451.225
RICHLAND EC 37.62
ROCK CNTY EC 158.25
ST CROIX CNTY EC 37.62
ST CROIX CNTY PORTS 145.425 156.85
ST CROIX VLY NATRL GAS 48.1Ø
STANDARD OIL 35.14
STANDARD OIL BULK 154.515
STOUGHTON MUNI 153.41
SUPERIOR WATER L&P 153.47
TAYLOR CNTY EC 37.62 451.425
TREMPEALEAU EMC 37.48 37.62 451.525
UNDERGRND ENVRNM SVCS 3Ø.58 461.15
UNION OIL OF CA 47.48 158.37 462.1Ø
U S OIL 152.96 461.875
U S PETROL 152.99
UNITED PWR ASSN 153.6Ø5
UNIV OF WISC 153.23 153.26
VERNON EC 37.62 37.74
WAUKESHA MUNI 153.71
WAUSHARA CNTY EC 47.9Ø 47.98
WAUPIN PUB UTIL 153.62
WISC ELEC PWR CO 35.92 37.54 37.56 37.7Ø 37.84 154.6Ø 158,145 451.Ø5 451.Ø75 451.15 451.375 451.425 451.575 451.625
WISC FUEL/LITE 153.47
WISC GAS CO 48.52 153.44 153.5Ø 451.Ø25 451.1Ø 451.2Ø 451.25
WISC-MICH PWR 37.7Ø 47.74 153.515 153.695 158.13 158.175 173.3Ø 451.2Ø
(NUCLEAR PWR FACILITY KEWAUNEE 1 AT CARLTON USES 47.74)
(NUCLEAR PWR FACILITIES POINT BCH 1 &2 AT TWO CREEKS USE 37.7Ø 153.515 153.695 158.13 158.175 173.3Ø)
WISC NATRL GAS 37.7Ø 37.76
WISC P&L 37,7Ø 37,78 48,24 48.32 48.34 48.36 48.42 451.425
WISC PUB SVC 47.74 47.8Ø 47.86 47.94 151.655 151.685 151.745 151.775 151.8Ø5 151.835 151.865 151.895 151.925 151.955 154.6Ø 467.75 467.8Ø 467.85 467.9Ø
WISC RPDS MUNI 158.18
WISC RIV PWR CO 153,53
WISC STHN GAS 48.14
WISC STATE ENVRNMTL 31.66 151.145 151.2Ø5 151.4Ø 159.33

W Y O M I N G

ALPINE DRILL 151.865
AMCO DRILL 464,1Ø
AMER NUCLEAR CORP 152.87 153.ØØ5
AMOCO OIL/PROD 49.1Ø 153.Ø65 153.23 153.335 154.49 464.975
AMOCO PIPELN 49.14 451.375
ANDERSON OIL 151.955
APACHE GAS PRODS 152.3Ø
ARCH MINERAL 152.48
ARCO PETROL 48,56 49.1Ø 153.17 451.575 464.3375 464.3875 464.375 464,4875 464.5375 469.3375 469.3875 469.4375 469,4875 469,5375
ASHLAND OIL 451.55
BASIN EC 35.98 451.Ø75
BECHTEL CORP 151.52
BELCO PETROL 153.26
BIG HORN REC 47.96 451.15
BLACK HILLS OIL MRKTRS 151.655
BLACK HILLS P&L 47.7Ø 47.78 47.84 47.9Ø
BOBS OIL CO 157.56
BOELENS WELL SVC 463.2Ø
BOYD WELL SVCNG 451.875
BRIDGER VLY EC 153.47
BRINKERHOFF DRILL 151.955
BROWN & ROOT 151.49
BUTTES RESOURCES 153.14
BUTTRES GAS/OIL 153.14
CABLE DRILL 452.45
CAMPBELL OILFLD SVC 151.55 151.715
C&H WELL SVC 463.775

C&L ROUSTABOUT SVC 152.42
CAMEL DRILLING 151.925
CAPSHAW WELL SVC 153.ø2
CARBON P&L 37.66 48.ø8
CASPER MUNI 158.22
CENTURY GEOPHYS 151.685
CHAMPLIN PETROL 461.5ø
CHEVRON OIL 48.76 464.1ø
CHEYENNE LITE/FUEL/PWR 37.74
CHEYENNE MUNI 153.62
CITIES SVC OIL 158.295 159.48 464.175 464.3ø 464.6ø
CLINTON OIL 151.625
COASTAL STATES GAS 47.7ø 48.68 452.5ø
COLO INTERSTATE GAS 48.82 49.42
COLTRANE WELL SVC 47.64
CONOCO 49. øø 49.2ø 451.6ø 451.65
CONSOL OIL/GAS 153.14
CONT'L PIPELN 49.øø
CORONADO OIL 153.275
CRUDE CO 151.8ø5 463.425
CYCLONE DRILL 153.215
DAVIS OIL 153.3ø5
DEGAUGH WELL SVC 451.775
DENNIS OILFLD SVC 151.955
DOW CHEM 43.18 451.925 452.175
DRILLING ENTERPR 464.1ø 464.65
DUNBAR WELL SVC 152.99 453.2ø
ECOLOGCL ENGNRNG 151.865
EMERSON WELL SVC 452.125
EMPIRE STATE OIL 451.55
ENERGY DEVELPMNT CO 451.925
EXETER DRIL/EXPLOR 48.6ø 451.975 452.øø 452.125
F&W OILFLD SVC 151.775
FARMERS UNION CNTRL EXCH 48.86
FARNSWORTH/KAISER DRIL 35.96
FIELD ROCKY MTN DRIL 153.155
FRANNIE DEAVER UTIL 153.455
GARLAND L&P 48.ø2
GARY OPERATING 153.26 158.355
GEORGIA PACIF 158.25
GETTY OIL 49.54 452.ø75
GIBSON WELL SVC 43.1ø
GILL OIL 463.35
GINTHER GAS PROCESS 153.245
GREBE DRILL 158.355
GREENS OILFLD COMMUNIC 157.68
HACKER OIL 464.275
HALLIBURTON RESCOURCE MGT 47.44
HARBISON DRIL 151.895
HARRIS DRILL 151.955
HOLWELL DRILL 153.øø5
HORST OIL 43,14
HUNT OIL 43.4ø
HUSKY OIL 153.ø95 153.275 153.365
HUSKY PIPELINE 153.35
IGO OILWELL SVC 151.925
INEXCO OIL 153.185
INT'L NUCLEAR 151.595 151.955
J&J WELL SVC 49.52
JUNCTION OIL 154.54
KANS-NEBR NATRL GAS 37.5ø 451.15 457.225
KERR MCGEE 47.56 152.885 451.825 451.85 451.875 451.9ø 453.975
KG DRILLING 48.74
KIESLING OIL 154.54
KLEIN DRILL 463.3ø
LINCOLN SVC CORP 153.5ø 158.22
LITTLE AMER REFINING 451.225
LOHMAN JOHNSN DRILL 49.36
LONDON PWRLINE CONST 464.1ø
LOWER VLY P&L 48.26
M&B DRILL 43.18
M&M OILFLD SVC 49.55
MADDOX WELL SVC 43.ø6 452.ø5
MARATHON OIL 153.2ø
MARATHON PIPELN 153.38 158.28
MC CULLOCH GAS TRNSMSN 153.47
MIKES OILFLD SVC 464.1ø
MINERALS EXPLOR 451.95 451.975 456.95 456.975
MITCHELL MUNI 48.5ø
MOBIL OIL 49.ø2 153.32 158.37 451.7ø
MONT-DAKOTA UTIL 48.26
MTN FUEL SUPPLY 48.72 158.13 158.19 158.25
NIOBRARA EC 48.32
NORTHERN UTIL 153.59
N W PIPELINE 48.86
ODESSA NATRL 158.28
OILWELL PERFORAT 463.9ø
OSAGE PUMPS 158.295
PACIF GAS TRNSMSN 48.86
PACIF P&L 37.74 153.425 153.515 154.6ø
PAN AMER PETROL 153.23
PANHANDLE ESTN PIPELN 451.575 453.15
PASCO PIPELN 49.1ø
PERKINSON DRIL 463.625
PHILLIPS PETROL 48.96
PICKERING WELL SVC 42.96
PIONEER OILFLD SVC 157.68
PLAINS PIPELN 153.2ø 451.7ø
PLATTE PIPELN 158.43
POLLAT WELL SVC 35.98
POWER LINE CONTR 151.5ø5
RAINBOW RESOURCES 153.125
RAYS OILFLD SVC 151.835
RELCO PETROL 158.37
RINE DRILL 47.56
RIVERTON VLY EC 153.65
ROCKY MTN ENERGY 152.95
RUBY DRILL 153.ø8
RURAL EC 48.34
SCHLAIKJER OIL 153.17
SERVICE PIPELN 49.14
SHELL OIL 48.58 48.64
SHERIDAN JOHNSN REC 153.44
SHOSHONE PROJECT 153.53
SHOSHONE RIV PWR 153.5ø
SIGNAL DRILL 49.34
SINCLAIR OIL 153.ø65 153.17
SINCLAIR PIPEL 49.1ø
SING WELL SVC 151.49
STAFFORD WELL SVC 47.78
STEWART DRILL 153.29 158.235
STEWART WELL DRILL 464.325
STUARCO OIL 49.ø6
SUN OIL 461.4ø 461.6ø
SUN OILWELL CEMNT 151.595
SUN RAY ENERGY 42.96
TERRA RESOURCES 33.22
TESORO PETROL 153.35 461.65
TETON WELL SVC 462.1ø
TEXACO 49.84 153.14 153.185 157.56
THUNDER DRILL 157.62
TICES OIL 35.92
TOCO CORP 3ø.7ø
TP WELL SVC 464.1ø
TRI CNTY EC 48.34
TRI STATE GEN/TRNSMSN 451.525 451.675
TRUE OIL 153.11
UNION OIL 158.13 158.37
UNITED NUCLEAR 452.ø75
UPDIKE BROS 49.18
URANIUM SUPPLY SVC 154.49
UTAH P&L 153.71 451.15
WASHAKIE REC 48.ø6
WATSON WELL SVC 463.5ø
WELCH OIL PUMPING 151.8ø5
WELL SERVICING 461.1ø
WESTRN AREA PWR ADMIN (US) 167.825 167.975 168.45 413.8ø
WESTERN NUCLEAR 151.595
WESTERN TRNSMSN CORP 153.125 467.ø75
WHEATLAND REC 47.86 154.515 173.25
WHEATLAND MUNI 48.16
WILCOX OIL 35.ø8
WOODS PETROL 153.125
WYOMING GAS CO 464.1ø
WYO MINERAL CO 151.925
WYO OILFLD 463.35
WYO STATE ENVRMNTL 151.16 151.295 151.43
WYRULEC CO 153.71
YAMPA VLY ELEC 48.42

SOME OFFSHORE RIGS & CALLSIGNS

BIG JOHN	WY-823ø
BLUE DOLPHIN	
BLUE WATER #2	WQ-4537
BLUE WATER #3	WE-4957
BLUE WATER #4	WYT-9274
BRINKERHOFF #1	WYP-4914
BULL RUN	WY-9829
CALDRILL #1	WT-2ø59
CENTURY	
CHAPARRAL	WV-9773
CHRIS SEGER	WY-3948
CUSS #1	WH-5243
CYCLONE	WGWO
DELTA	
DIAMOND M-99	WYZ-7561
DICKSON M SAUNDERS	WF-3571
DISCOVERER #1	WPGS
DIXILYN 15ø	
DRILLER	WD-5631
DRILLER	WI-25ø5
DRILLING BARGE #1	WK-8386
DRILL BARGE ROWAN I	WF-9ø53
DRILL BARGE ROWAN II	WU-5134
DRILL BARGE ROWAN III	WG-47ø2
E W THORNTON	WPHA/KSZ3
ELDORADO	
ERNIE MILLER	WG-2597
EXPLOIT	WH-4182
F G MC CLINTOCK	WZC-4ø81
GEM	
GEORGE M READING	WH-62ø8
GLOMAR CHALLENGER	WNCU
GLOMAR CONCEPTION	WPGN
GLOMAR CORAL SEA	KUBL
GLOMAR GRAND BANKS	KPOT
GLOMAR GRAND ISLE	KKFE
GLOMAR JAVA SEA	WFDS
GLOMAR NORTH SEA	KIAF
GLOMAR SIRTE	KPJW
GLOMAR TASMAN	KIAD
GOLDRILL IV	WO-8ø43
GULF COAST II	
GULF COMMANDER	WYZ-2955
HAVDRILL	LKBY
HERON	
HUGHES GLOMAR EXPLORER	WCHG/WHZ6
HURRICANE	KOGL
INTREPID	WZX-3969
J STORM I	
J STORM III	
J W NICKLE/RIG 42	WJ-2227
JOHN HAYWARD	
JUBILEE	WV-7775
LA CIENCIA	WA-69ø1
LEO M CLARK/RIG 45	WG-8574
LIBERTY RIG #2	WHKB
LOFCO ST-1	WH-5223
MARGARET	
MARLIN #1	WN-4232
MARLIN #2	WN-836ø
MARLIN #3	WV-8937
MARLIN #4	WX-6756
MARLIN #6	WYZ-5872
MARLIN #7	KGBK
MISSION EXPLORATION	WQRR
MISSION VIKING	KQYL
MR ARTHUR	
MR CHARLIE	
MR GUS II	
MR JACK	WB-737ø
MR LOUIE	WP-5718
MR MEL	
MR NEIL	WX-8674
MR SAM	
MR SI	
MOVIBLE RIG #2	WQ-7683
MOVIBLE RIG #3	WF-9925
NORDRILL	CYMK
NORTH STAR	
OS-7	
OCEAN 66	
OCEAN DRILLER	WH-9466
OCEAN EXPLORER	WU-51ø6
OCEAN KING	
OCEAN QUEEN	WV-5471
OCEAN SCOUT	
OCEAN STAR	
OCEAN TRAVELER	WV-9972
ODECO 7	
OIL CITY RIG 1	WYH-6529
ORVILLE FISHER	WIJO
PMI III	WI-45ø3
PMI IV	WI-4517
PMI V	WZV5926
PMI VI	WZ-5925
PENROD 5ø	
PENROD 51	
PENROD 52	
PENROD 54	WV-9827
PENROD 55	WV-9826
PENROD 56	WV-9829
PENROD 57	WV-983ø
PENROD 58	WYZ-3594
PENROD 59	WYZ-3595
PENROD 6ø	WZL-5495
PENROD 61	WZL-5496
PENROD 62	WZL-5497
PENROD 67	KLHG
PENROD 68	WXZ-5937
PENROD 69	WXZ-6742
PENROD 71	WPGL
PENROD 72	WHG1
PENROD 74	KCSF
RANGER I	WY-56ø2
RANGER III	WYR-2731
RIG #4	WYZ-3463
RIG #16	WY-5716
RIG #55	WG-9933
RIG #122	WY-78ø6
RIG #132	WY-78ø7
RIMTIDE	
ROWAN/RIG 24	
ROWAN II/RIG 6	
S-55/NOBLE RIG AW-2ø	
ST LOUIS	
SANTA FE MARINER I	WP-9498
SANTA FE MARINER II	
SANTA FE MARINER III	WMBY
SEADRILL 3	
SEADRILL 7	
SEADRILL 1ø	WH-7624
SEADRILL 11	WB-9ø89
SEDCO 445	5LXF
SEDCO I	
SEDCO J	
SHENANDOAH	WYM-2ø53
SHILOH	WY-2ø53
STORMDRILL I	
STORMDRILL II	
STORMDRILL III	
STORMDRILL IV	
STORMDRILL V	WX-8197
STORMDRILL VI	
SURVEYOR	HO-7236
TAINARON	ELUL
TIMESAVER II	
TOPPER I	WY-4842
TOPPER II	WY-4766
TOPPER III	
TRANSLAKE 1	
TRANSLAKE 2	
TRANSWORLD RIG 44	
TRANSWORLD RIG 45	
TRANSWORLD RIG 47	
TRANSWORLD RIG 5ø	
TRANSWORLD RIG 54	
TRANSWORLD RIG 62	
TYPHOON	KDCG
WESTERN DATA	
WESTERN OFFSHORE #V	WU-3ø51
WESTERN OFFSHORE #VI	WX-9øø3
WESTERN OFFSHORE #VIII	KPRF
WESTERN PACESETTER I	KHDB
WESTERN PACESETTER II	KFBX
WESTERN PACESETTER III	WDBT
WESTERN POLARIS I	WYQ-2ø42
WESTERN POLARIS II	WZA-8397
WESTERN TRITON I	WZA-8348
ZAMA M/RIG 15	
ZAPATA 25	
ZAPATA LEXINGTON	WYQ-2681
ZAPATA NORDIC	WH-3844
ZAPATA SARATOGA	WYQ-385ø